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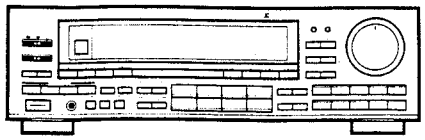
The future of sound and vision.

Service Manual



ORDER NO.
ARP1835

AUDIO/VIDEO STEREO RECEIVER

VSX-5500S
VSX-5400

VSX-5500S AND VSX-5400 HAVE FOLLOWING VERSIONS :

Type	Applicable model		Power requirement	Export destination
	VSX-5500S	VSX-5400		
KUC	O	O	AC120V only	U. S. A. and Canada
SD/G	—	O	AC110V, 120V-127V, 220V, 240V (switchable)	U. S. Military

- This manual is applicable to the VSX-5500S/KUC, VSX-5400/KUC and SD/G types.
- For the VSX-5400/KUC and SD/G types, refer to pages 41, 42.
- The "S" at the end of the model number indicates that a programable remote control unit is supplied.

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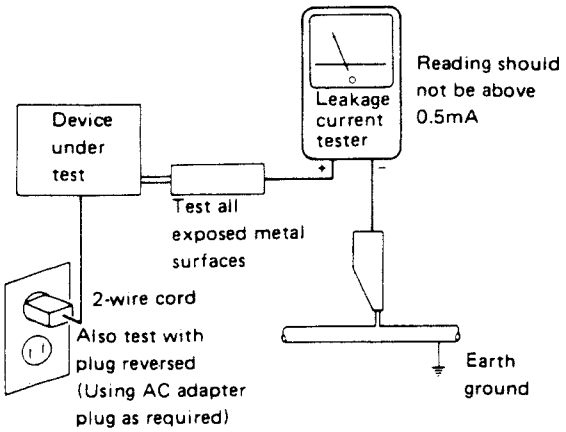
1. SAFETY INFORMATION

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Device under test
Leakage current tester
Reading should not be above 0.5mA
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

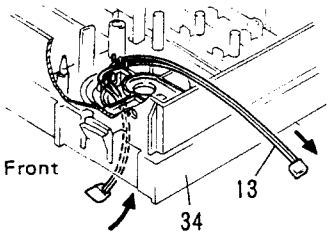
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

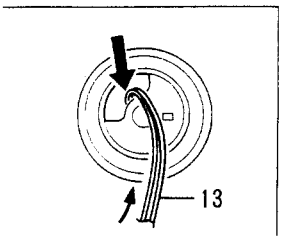
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

• NOTE FOR INSTALLATION OF VR LED ASSEMBLY

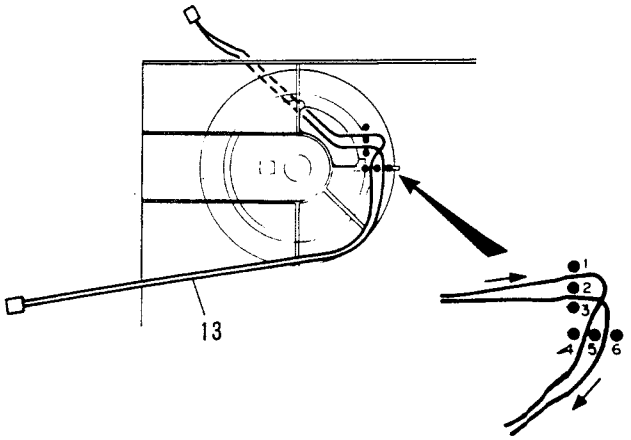
Step 1 : Run the lead wire (No.13) through the hole indicated by the arrow in the Fig. below from the face of panel base (No.34).





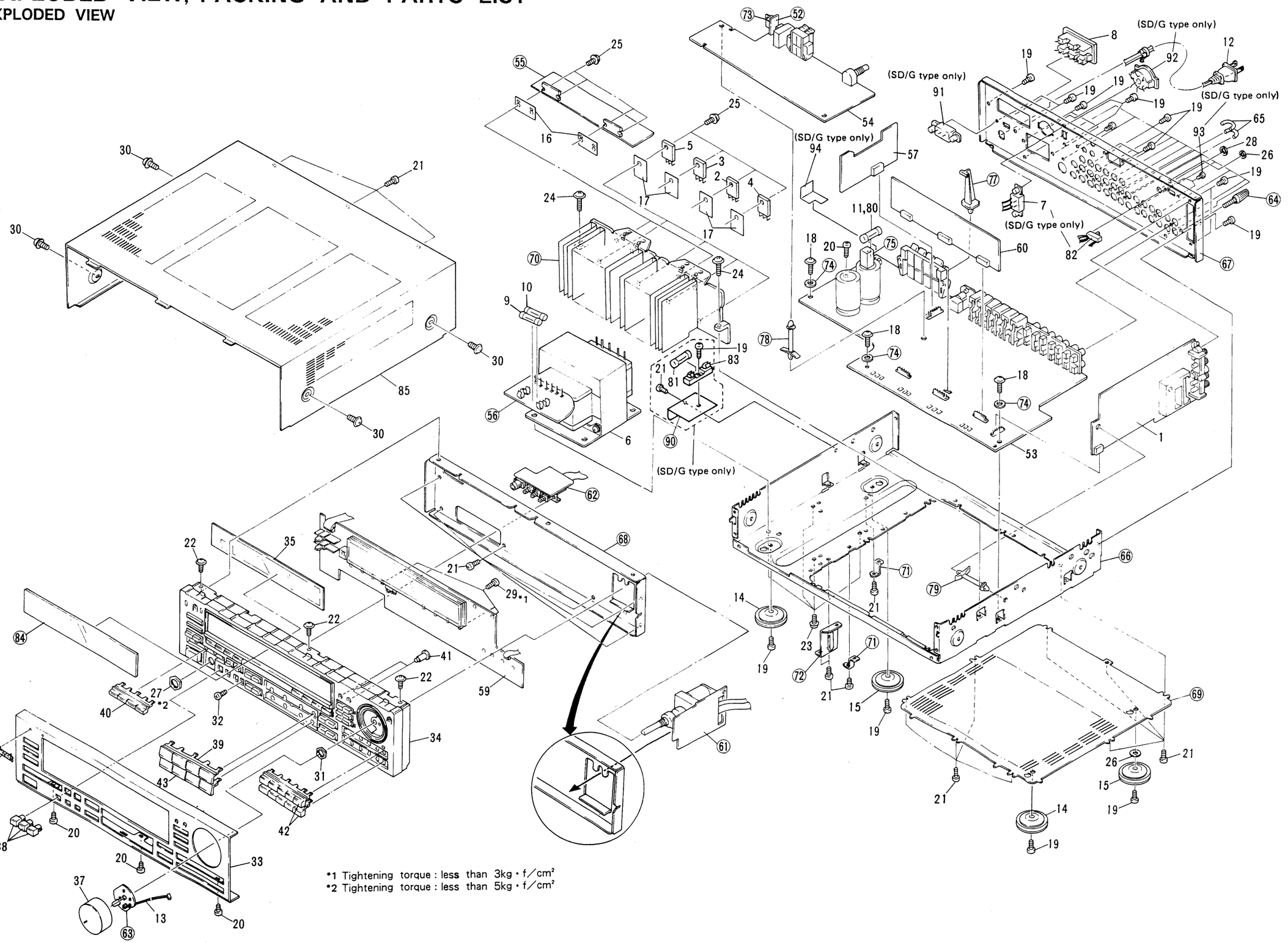
Front panel face
VR knob hole

Step 2 : Run the lead wire through the spaces between the bosses at the rear side of the panel base as shown in the Fig. below.
Run one of the wires through the spaces between boss 1 and boss 2, and boss 4 and boss 5, and the other through the spaces between boss 2 and boss 3, and boss 5 and boss 6.
(Insert the wires deep between the bosses.)



2. EXPLODED VIEW, PACKING AND PARTS LIST

2.1 EXPLODED VIEW



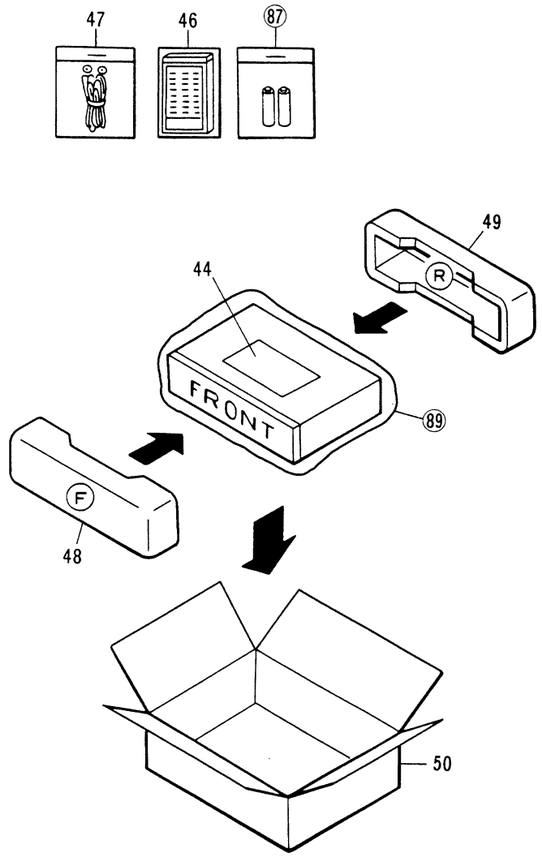
2.2 PARTS LIST

NOTES :

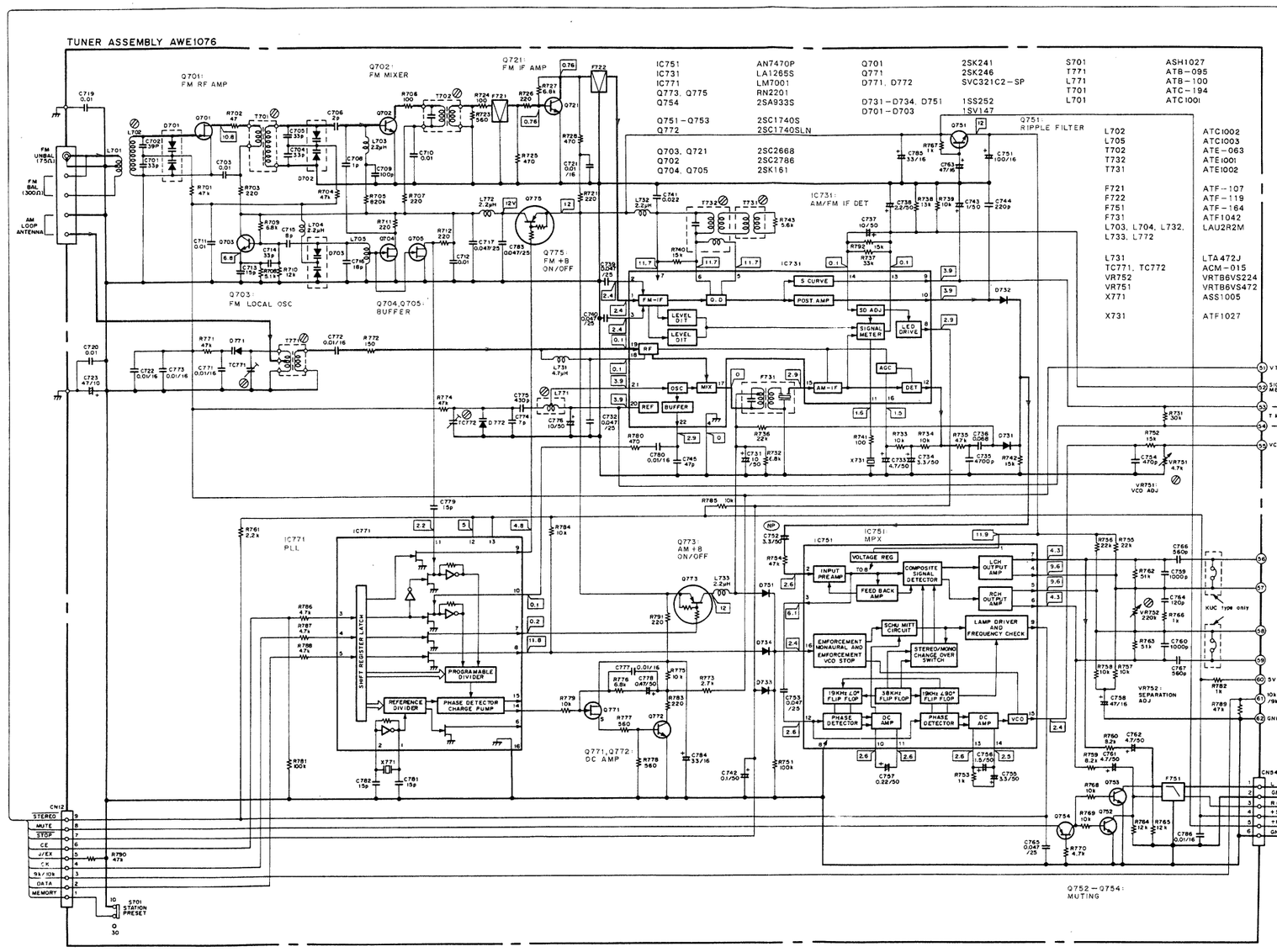
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Part No.	Description
	1	AWE1076	TUNER ASSEMBLY
⚠	2	2SA1302(A)	TRANSISTOR Q1
⚠	3	2SA1302(A)	TRANSISTOR Q3
⚠	4	2SC3281(A)	TRANSISTOR Q2
⚠	5	2SC3281(A)	TRANSISTOR Q4
⚠	6	ATS1146	POWER TRANSFORMER T1
		ATS1147	POWER TRANSFORMER T1 (SD/G TYPE ONLY)
⚠	7	AKX1004	VOLTAGE SELECTOR S1
⚠	8	AKP-515	AC SOCKET 3-P
⚠	9	AEK-100	FUSE(4A) FU3
⚠	10	AEK-100	FUSE(4A) FU4
⚠	11	AEK-304	FUSE(8A) FU1
⚠	12	ADG1031	AC POWER CORD
		ADG1015	AC POWER CORD (SD/G TYPE ONLY)
	13	ADX1191	LEAD WIRE
	14	AMR1350	INSULATOR
	15	AMR1353	INSULATOR
	16	AEP-057	MICA SHEET
	17	AEP-313	INSULATING SPACER
	18	ABA-283	SCREW (STEEL)
	19	ABA-298	SCREW
	20	ABA1006	SCREW (STEEL)
	21	ABA1009	SCREW (STEEL)
	22	ABA1011	SCREW (STEEL)
	23	ABA1031	SCREW
	24	ABA1052	SCREW
	25	ABA1082	SCREW
	26	ABE-053	WASHER
	27	ABN-065	NUT
	28	ABN1006	FLANGE NUT M9
	29	BBZ26P080FMC	SCREW
	30	FBT40P080FZK	SCREW
	31	NK90FUC	NUT
	32	VMZ30P060FMC	SCREW
	33	ANB1304	FRONT PANEL
	34	AMB1400	PANEL BASE ASSEMBLY
	35	AAK1782	FL FILTER
	36	AAM1029	NAME PLATE (METAL)
	37	AAB1056	ROTARY KNOB
	38	AAD1328	PUSH KNOB
	39	AAD1392	FUNCTION KNOB
	40	AAD1397	HINGE KNOB
	41	AAD1398	TACT KNOB
	42	AAD1406	HINGE KNOB
	43	AAD1613	FUNCTION KNOB
	44	ARB1174	OPERATING INSTRUCTIONS
	45	AAK1439	TEMPLATE(REFER TO PAGE 42)
	46	AXD1100	REMOTE CONTROL UNIT
	47	AEA1002	ROD ANTENNA
	48	AHA1020	STYROL PROTECTOR
	49	AHA1021	STYROL PROTECTOR
	50	AHD1624	PACKING CASE
	51		.....
	52		MULTI ROOM ASSEMBLY
	53	AWZ2469	AF VIDEO ASSEMBLY
	54	AWZ2470	SURROUND ASSEMBLY
	55		REAR POWER AMP ASSEMBLY
	56		FUSE ASSEMBLY
	57	AWZ2473	ENHANCER ASSEMBLY
	58		.....
	59	AWZ2474	μCOM ASSEMBLY
	60	AWZ2475	PRE POWER AMP ASSEMBLY
	61		MASTER VOLUME ASSEMBLY
	62		SP-A,B, REAR SW ASSEMBLY
	63		VR LED ASSEMBLY
	64		TERMINAL SCREW
	65	AKM1004	PLUG
	66		CHASSIS
	67		REAR PANEL
	68		PANEL STAY
	69		BOTTM PLATE
	70		HEAT SINK
	71		P.C.B HOLDER
	72		HEAT SINK HOLDER
	73		MINI JACK HOLDER
	74		SPACER RING
	75		RUBBER CUSHION
	76		.....
	77		P.C.B SUPPORTER
	78		P.C.B SUPPORTER
	79		P.C.B SUPPORTER
⚠	80	AEK-100	FUSE(4A) FU1 (SD/G TYPE ONLY)
⚠	81	AEK-100	FUSE(4A) FU2 (SD/G TYPE ONLY)
	82	ASH-004	SLIDE SWITCH (SD/G TYPE ONLY)
	83	AKR-032	FUSE HOLDER (SD/G TYPE ONLY)
	84		ACRYLIC PANEL
	85	ANE1043	METAL BONNET
	86		.....
	87		AM4 BATTERY(1.5V)
	88		.....
	89		SHEET
	90		HOLDER PLATE (SD/G TYPE ONLY)
⚠	91	AKX1004	VOLTAGE SELECTOR S2 (SD/G TYPE ONLY)
⚠	92	AKX-507	VOLTAGE SELECTOR S3 (SD/G TYPE ONLY)
	93	VMZ26P040FZK	SCREW (SD/G TYPE ONLY)
	94	AEC1178	BARRIER (SD/G TYPE ONLY)

2.3 PACKING



3. SCHEMATIC DIAGRAM


TUNER ASSEMBLY AWE1076
Q701: FM RF AMP
Q702: FM MIXER
Q721: FM IF AMP
Q703: FM LOCAL OSC
Q704,Q705: BUFFER
Q775: FM +B ON/OFF
IC731: AM/FM IF DET
Q751: RIPPLE FILTER
IC771 PLL
Q773: AM +B ON/OFF
Q771,Q772: DC AMP
IC751: MPX
Q752–Q754: MUTING
IC751 AN7470P LA1265S LM7001 RN2201 2SA933S 2SC1740S 2SC1740SLN 2SC2668 2SC2786 2SK161
Q701 Q771 D771, D772 D731–D734, D751 D701–D703 2SK241 2SK246 SVC321C2–SP 1SS252 1SV147
S701 T771 L771 T701 L701
ASH1027 ATB–095 ATB–100 ATC–194 ATC1001
L702 L705 T702 T732 T731 L703, L704, L732, L733, L772 L731 TC771, TC772 VR752 VR751 X771 X731
ATC1002 ATC1003 ATE–063 ATE1001 ATE1002 ATF–107 ATF–119 ATF–164 ATF1042 LAU2R2M LTA472J ACM–015 VRT86VS224 VRT86VS472 ASS1005 ATF1027
FM UNBAL (75Ω)
FM BAL (300Ω)
AM LOOP ANTENNA
CN12
STEREO MUTE STOP CE µ-EX CK DI/IOR DATA MEMORY
S701 STATION PRESET
VT SIGNAL METER T METER VCO
CN54 L CH GND R CH +3V +12V GND
AF VIDEO POWER ASSEMBLY AWZ2469 (1/3)
Q125 VCR NOISE FILTER
IC121(1/6)–(6/6), IC122(1/6), (4/6): INPUT SW
Q121 – Q124 BUFFER
IC101 PHONO EQ AMP
IC122(2/6), (3/6): INPUT/OUTPUT SW
Q126 VCR NOISE FILTER
VCR2 AUDIO IN
VCR1 AUDIO IN
VDP/CDV AUDIO IN
TAPE2 PLAY
TAPE1/DAT PLAY
CD
PHONO
TAPE2/DAT PLAY
TAPE1/DAT PLAY
VCR1 AUDIO IN
VCR2 AUDIO IN
L CH
R CH

1 RESISTORS
Indicated in Ω, 1/4W, 1/8W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10%, (M) : ±20% tolerance.

2 CAPACITORS
Indicated in capacity (µF) / voltage (V) unless otherwise noted p : pF.
Indication without voltage is 50V except electrolytic capacitor.

3 VOLTAGE CURRENT
: DC voltage (V) at no input signal.
mA : DC current at no input signal.

4 OTHERS
→ Signal route
⊘ Adjusting point
The △ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistor have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

SWITCHES (Underline indicates switch position)
Outside of PC board
S1 : IMPEDANCE SELECTOR LESS THAN 8Ω – 8Ω OR MORE
S2 : VOLTAGE SELECTOR 110-120V – 220-240V (SD/G type only)
S3 : VOLTAGE SELECTOR 240/120–127/110/220V (SD/G type only)
S4 : DE-EMPHASIS 75 – 50µS (SD/G type only)

TUNER ASSEMBLY
S701 STATION 10 – 30

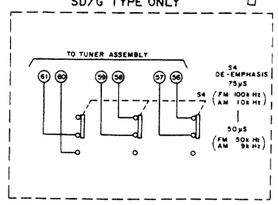
µ COM DISPLAY ASSEMBLY
S801 TUNING+
S802 FM
S803 TUNING AUTO/MANUAL
S804 REAR LEVEL+
S805 BALANCE L
S806 TREBEL+
S807 BASS+
S808 TUNING–
S809 AM
S810 TUNING DIRECT ACCESS

S811 : REAR LEVEL–
S812 : BALANCE R
S813 : TREBLE–
S814 : BASS–
S815 : STATION CALL ×1
S816 : STATION CALL ×6
S817 : FM MODE AUTO/MONO
S818 : SIMULATED STEREO
S819 : MUTING
S820 : ACOUSTIC MEMORY
S821 : VCR NOISE FILTER
S822 : STATION CALL ×2
S823 : STATION CALL ×7
S824 : MEMORY
S825 : VIDEO SIGNAL SELECTOR
S826 : TAPE2/DAT2 MONITOR
S827 : ACOUSTIC SELECT
S828 : VIDEO ENHANCER
S829 : STATION CALL ×3
S830 : STATION CALL ×8

S831 : MEMORY SCAN
S832 : VCR1
S833 : TAPE1/DAT1
S834 : DELAY TIME
S835 : SURROUND OFF
S836 : STATION CALL ×4
S837 : STATION CALL ×9
S838 : STATION NAME
S839 : VCR2
S840 : CD
S841 : DOLBY SURROUND
S842 : TV ANT VIDEO/TV
S843 : STATION CALL ×5
S844 : STATION CALL ×10
S845 : VDP/CDV
S846 : TUNER
S847 : SURROUND STUDIUM
S848 : POWER STANDBY/ON
S849 : PHONO
S850 : SIMULATED SURROUND
S851 : RETURN

SP SWITCH ASSEMBLY
S380 (1/3) : SPEAKERS A ON–OFF
S380 (2/3) : SPEAKERS B ON–OFF
S380 (3/3) : SPEAKERS REAR ON–OFF

SD/G TYPE ONLY



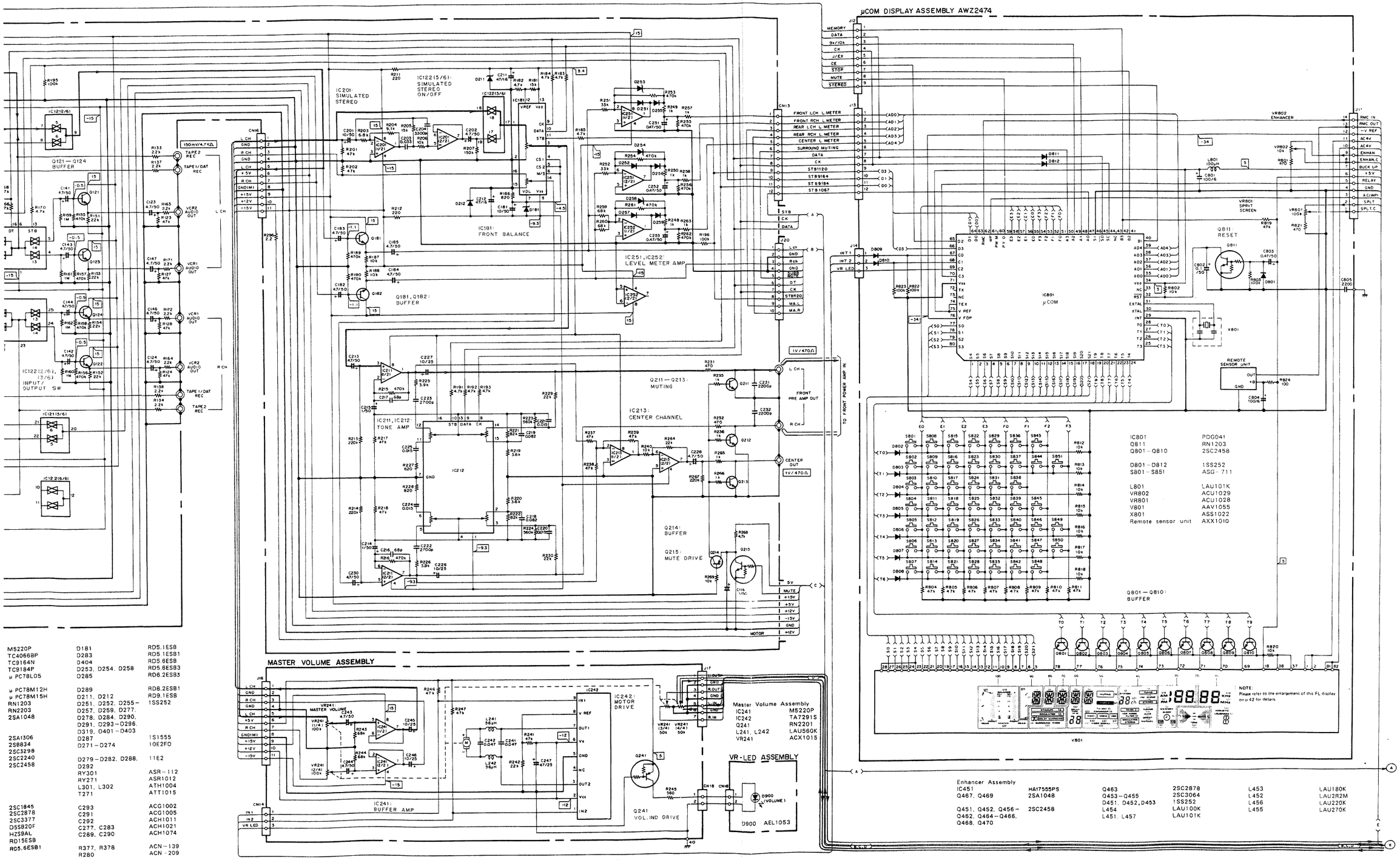
Switches for turning ON IC121 and IC122

FUNCTION	IC No.	IC121 (TC9164N)	IC122 (TC9164N)
PHONO		S1, S4, S7	S13, S14
CD		S2, S4, S7	S13, S14
TUNER		S4, S4, S7	S11, S13, S14
TAPE1/DAT1		S3, S7	S13, S14
TAPE2/DAT2	ON	S6	——
	OFF	S5	——
VCR1		S4, *S7, *S8	S14, S15
VCR2		S4, *S7, *S8	S13, S16
VDP/CDV		S4, S7	S12, S13, S14
VCR NOISE FILTER	ON	*S8	——
	OFF	*S7	——
SIMULATED STEREO	ON	——	S17
	OFF	——	S18

* Turn ON/OFF by synchronizing with VCR NOISE FILTER indicator only when FUNCTION is VCR1 or VCR2.
The indicator only changes, and the switches (S7, S8) do not change when FUNCTION is other than VCR1 or VCR2.

AF Video POWER Assembly

IC401	CX–894
IC403	CXD1067P
IC181	CXD1120P–1
IC201, IC213, IC251, IC252	M5218LF
IC211	M5220L
IC101	M5220P
IC402	TC4066BP
IC121, IC122	TC9164N
IC212	TC9184P
IC404	µ PC78L05
IC271, IC272	µ PC78M12H
IC273	µ PC78M15H
Q215, Q409, Q412	RN1203
Q410, Q411	RN2203
Q214, Q315, Q401	2SA1048
Q311, Q312	2SA1306
Q271	2SB834
Q309, Q310	2SC3298
Q320	2SC2240
Q121–Q126, Q181, Q182, Q211, Q212, Q273, Q275, Q276, Q316–Q319, Q402, Q403, Q406–Q408, Q471	2SC2458
Q413, Q414	2SC1845
Q213, Q404, Q405	2SC2878
Q272, Q274	2SC3377
D286	D5SB20F
D318	HZS9AL
D275	RD15ESB
D276	RD5.6ESB1
D181	RD5.1ES
D283	RD5.1ES
D404	RD5.6ES
D253, D254, D258	RD5.6ES
D285	RD6.2ES
D289	RD8.2ES
D211, D212	RD9.1ES
D251, D252, D255–D257, D259, D277, D278, D284, D290, D291, D293–D296, D319, D401–D403	1SS252
D287	1S1555
D271–D274	10E2FD
D279–D282, D288, D292	11E2
RY301	ASR–1
RY271	ASR101
L301, L302	ATH100
T271	ATT101
C293	ACG100
C291	ACG100
C292	ACH101
C277, C283	ACH102
C289, C290	ACH107
R377, R378	ACN–1
R280	ACN–2



M5220P
TC4066BP
TC9164N
TC9184P
µ PC78L05

µ PC78M12H
µ PC78M15H
RN1203
RN2203
2SA1048

2SA1306
2SB834
2SC3298
2SC2240
2SC2458

2SC1845
2SC2878
2SC3377
DSSB20F
HZ58AL
RD15ESB
RD5.6ESB1

D181
D283
D404
D253, D254, D258
D285

D289
D211, D212
D251, D252, D255 — D257, D259, D277, D278, D284, D290, D291, D293 — D296, D319, D401 — D403
D287
D271 — D274

D279 — D282, D288, D292
RY301
RY271
L301, L302
T271

C293
C291
C292
C277, C283
C289, C290

R377, R378
R280

RD5.1ESB
RD5.1ESB1
RD5.6ESB
RD5.6ESB3
RD6.2ESB3

RD8.2ESB1
RD9.1ESB
1SS252

1S1555
10E2FD

11E2

ASR-112
ASR1012
ATH1004
ATT1015

ACG1002
ACG1005
ACH1011
ACH1021
ACH1074

ACN-139
ACN-209

AF VIDEO POWER ASSEMBLY AWZ2469(2/3)

IC401: VIDEO FUNCTION

IC403 (CXD1087P) terminal logic (1/2)

Pin No. / FUNCTION	1	2	3	4	5	6	7	8	9	11	12
PHONO	L	L	L	H							
CD	L	L	L	H							
TUNER	L	L	L	H							
TAPE1/DAT1	L	L	L	H							
VCR1	L	H	L	L							
VCR2	L	L	H	L							
VDP/CDV	H	L	L	L							

Q401,Q402: 6dB AMP

IC403: INPUT,OUTPUT CONTROLLER

IC402: ENHANCER ON/OFF

Q403,Q406: BUFFER

Q404,Q405: MUTING

Q407: BUFFER

Q409,Q410: ENHANCER ON/OFF

IC404: REGULATOR

Q411,Q412: RF MOD ON/OFF

Q408,Q413,Q414: BUFFER

NOTE: Parts list for AF VIDEO ASSEMBLY AWZ1813 (2/3) schematic diagram is included in the parts list for AWZ1813(1/3) on pp.8-9.

IC403 (CXD1087P) terminal logic (2/2)

Pin No. / FUNCTION		1	2	3	4	5	6	7	8	9	11	12
ENHANCER	ON				H							
	OFF				L							
DELAY TIME	15ms					H	L	L				
	20ms					L	H	L				
	30ms					L	L	H				
DOLBY									H	H	L	
STADIUM									L	H	L	
SIMULATED									L	L	L	

CN53: IN, SPLIT, ENHA, GND, +12V, IN, +12V, ENHA.C, SPLIT.C

ENHANCER ASSEMBLY AWZ2473

Q451,Q452 BUFFER

MULTIPLIER

CHROMA TRAP

Q456: REF VOLTAGE

Q457: BUFFER

DELAY

Q458,Q459 BUFFER

Q460,Q461: BUFFER

MIXER

MIXER

SYNC SEPARATOR

Q470: RESET

Q471: START TRIGER

IC451: 4 BITS

Q462,Q464: BUFFER

Q465,Q466 BUFFER

IC451,Q463: SPRIT SCREEN CONTROL

SURROUND AMP ASSEMBLY AWZ2470 (1/2)

CN19: +15V, GND, -15V, GND(DIG), REMCON.+, REMCON, +5V, 30ms D.T(L), 20ms D.T(M), 15ms D.T(S), DOLBY, SIMU

IC501,Q503: SWITCHING

VR501: SURROUND BALANCE

VR502: DOLBY LEVEL ADJ

Q505: BUFFER

IC531: COMPARATOR

DELAY TIME SEL

LPF1

PREDICT

MAIN CONTROL LOGIC

CLOCK OSC

READ/WRITE CONT.

ADDRESS ENCODER

OUTPUT BUFFER

ADDRESS OUTPUT BUFFER

IC532 DEGITAL DELAY

IC533 64k RAM

INPUT LATCH

CLOCK GEN

MEM CELL 64 x256

SENS CONT

ADRS M.PREXER

OUTPUT BUFFER

INPUT CONTROL

ADDRESS BUFFER

IC621	CXD1120P-1
IC561	LA2730
IC533	LM3364K-15
IC532	M50199P
IC501	M5201P
IC623	M5218LF
IC562, IC591	M5218PF
IC622	M5220P
IC531	M5233P
IC594	TC4066BP
Q503, Q591	RN1203
Q505, Q592, Q623	2SA1048
Q593, Q594	2SC2458
Q621, Q622	2SC2878
D593	HZS6AL
D591, D592	RD10ESB1
D627	RD5.1ESB
D629, D630	RD5.6ESB3
D531–D535, D594, D621–D624, D628, D631	1SS252

IC562(1/2): BUFFER

IC591: MATRIX

IC562(2/2): ADDER

IC594 SURROUND MODE

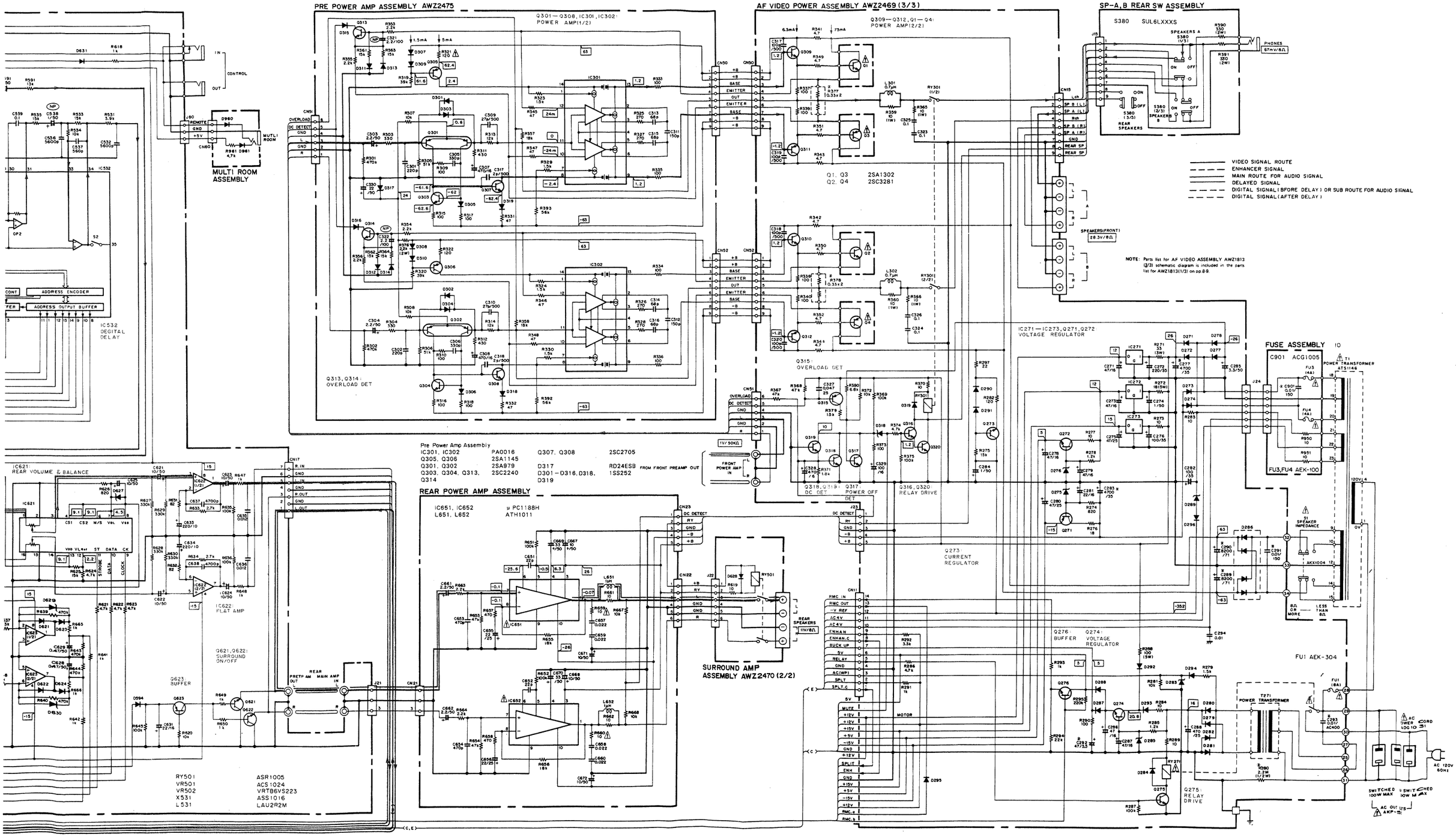
IC621 REAR VOLUME & BALANCE

IC623 METER AMP

IC561: DOLBY B

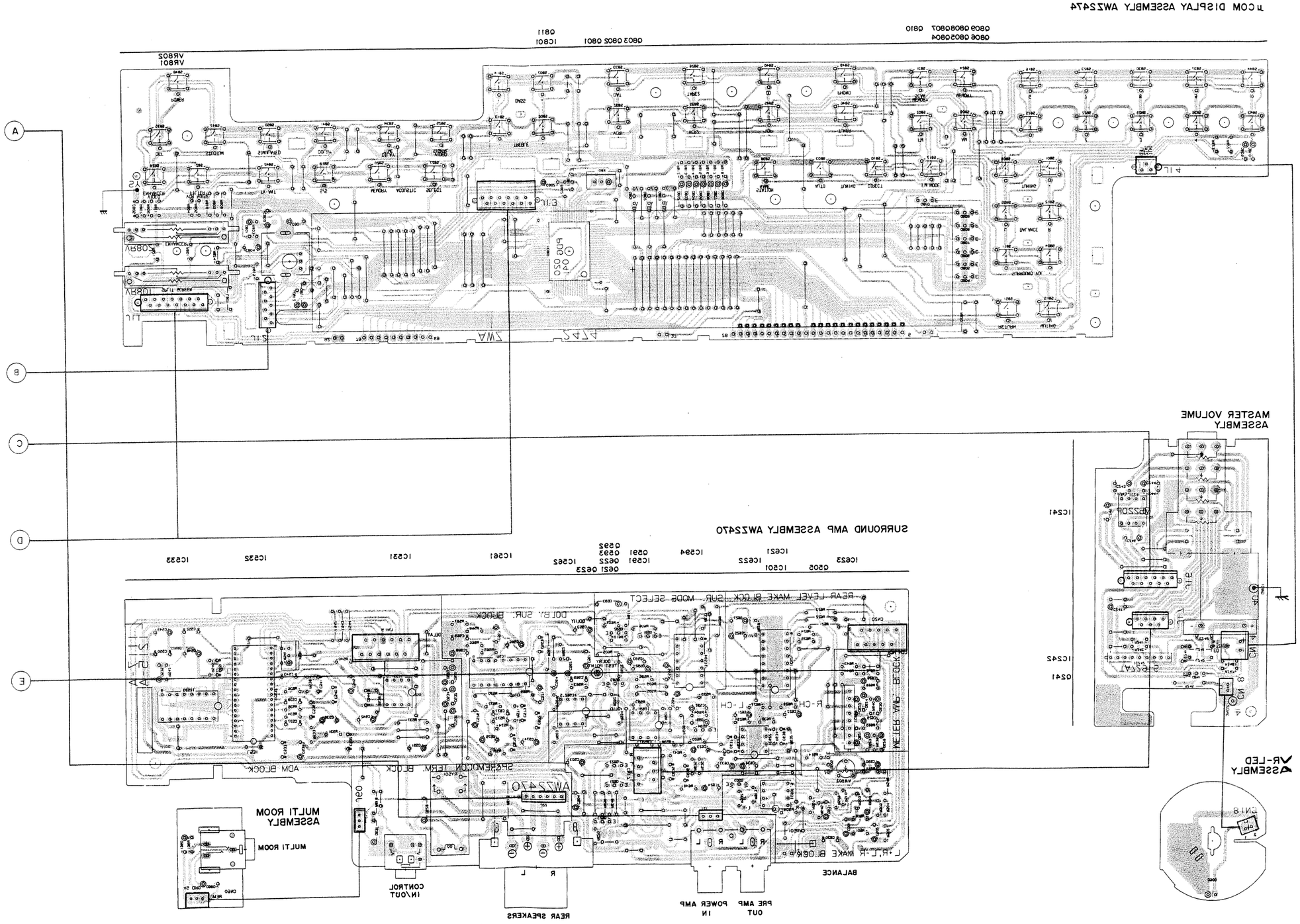
Q593,Q594: STADIUM/SIMULATED SWITCH

CN20: LCH, RCH, GND, SURR MUTE, DT, CK, STB H20, MA.L, MA.R


PRE POWER AMP ASSEMBLY AWZ2475
Q301—Q308, IC301, IC302: POWER AMP(1/2)
AF VIDEO POWER ASSEMBLY AWZ2469(3/3)
Q309—Q312, Q1—Q4: POWER AMP(2/2)
SP-A,B REAR SW ASSEMBLY
S380 SUL6LXXXS
SPEAKERS A S380 1/3
SPEAKERS B S380 2/3
S380 3/3 REAR SPEAKERS
PHONES 67mW/8Ω
SPEAKERS(FRONT) 2.83V/8Ω
VIDEO SIGNAL ROUTE
ENHANCER SIGNAL
MAIN ROUTE FOR AUDIO SIGNAL
DELAYED SIGNAL
DIGITAL SIGNAL(BFORE DELAY) OR SUB ROUTE FOR AUDIO SIGNAL
DIGITAL SIGNAL(AFTER DELAY)
Q1, Q3 2SA1302
Q2, Q4 2SC3281
NOTE: Parts list for AF VIDEO ASSEMBLY AWZ1813 (2/3) schematic diagram is included in the parts list for AWZ1813(1/3) on pp.8-9.
IC271—IC273, Q271, Q272: VOLTAGE REGULATOR
FUSE ASSEMBLY
C901 ACG1005
T1 POWER TRANSFORMER ATS1146
FU3,FU4 AEK-100
FU1 AEK-304
T271 POWER TRANSFORMER
SPEAKER IMPEDANCE
AKX1004
8Ω OR MORE
LESS THAN 8Ω
AC 120V 60Hz
SWITCHED 100W MAX
SWITCHED 10W MAX
AC OUTLETS AKP-1
Q273: CURRENT REGULATOR
Q276: BUFFER
Q274: VOLTAGE REGULATOR
Q275: RELAY DRIVE
Q315: OVERLOAD DET
Q318, Q319: DC DET
Q317: POWER OFF DET
Q316, Q320: RELAY DRIVE
FRONT POWER AMP IN
1V/50kΩ
Pre Power Amp Assembly
IC301, IC302 PA0016
Q305, Q306 2SA1145
Q301, Q302 2SA979
Q303, Q304, Q313, Q314 2SC2240
Q307, Q308 2SC2705
D317 RD24ESB FROM FRONT PREAMP OUT
D301—D316, D318, D319 1SS252
REAR POWER AMP ASSEMBLY
IC651, IC652 μ PC1188H
L651, L652 ATH1011
SURROUND AMP ASSEMBLY AWZ2470(2/2)
REAR SPEAKERS 11W/8Ω
IC621: REAR VOLUME & BALANCE
IC622: FLAT AMP
Q621, Q622: SURROUND ON/OFF
Q623: BUFFER
REAR PRETP AM OUT
MAIN AMP IN
MULTI ROOM ASSEMBLY
IC532 DEGITAL DELAY
ADDRESS ENCODER
ADDRESS OUTPUT BUFFER
CONTROL
RY501
VR501
VR502
X531
L531
ASR1005
ACS1024
VRT6VS223
ASS1016
LAU2R2M

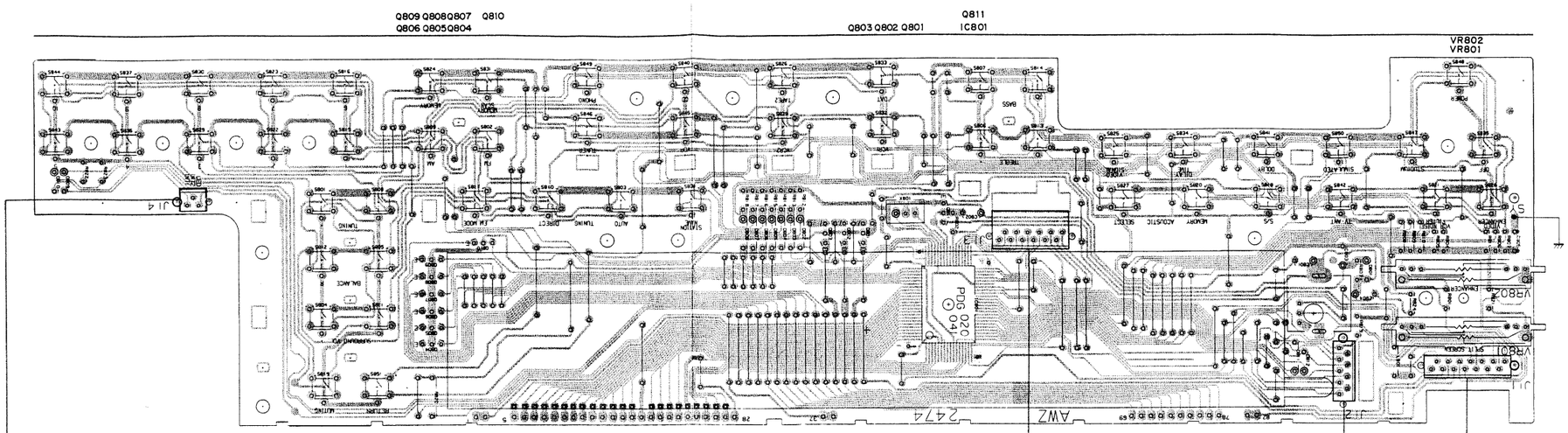
4. P.C. BOARDS CONNECTION DIAGRAM

- View from soldering side

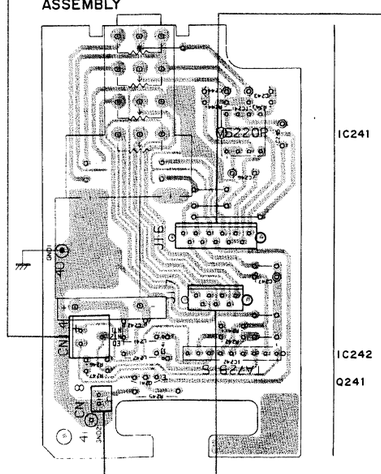


• View from component side

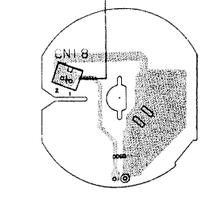
μCOM DISPLAY ASSEMBLY AWZ2474



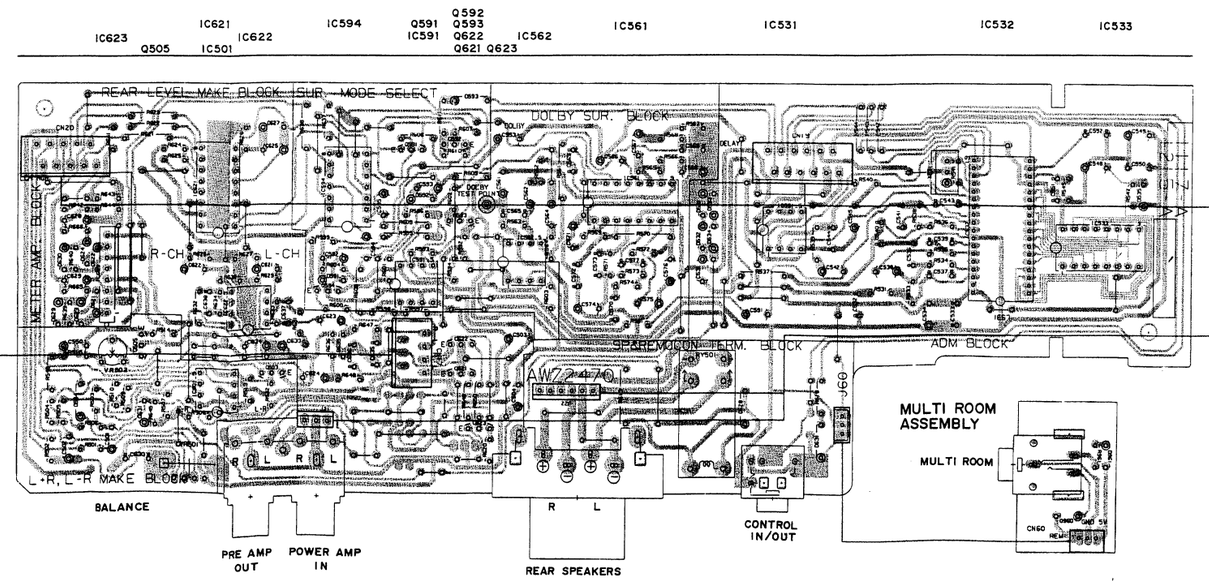
MASTER VOLUME ASSEMBLY



VR-LED ASSEMBLY

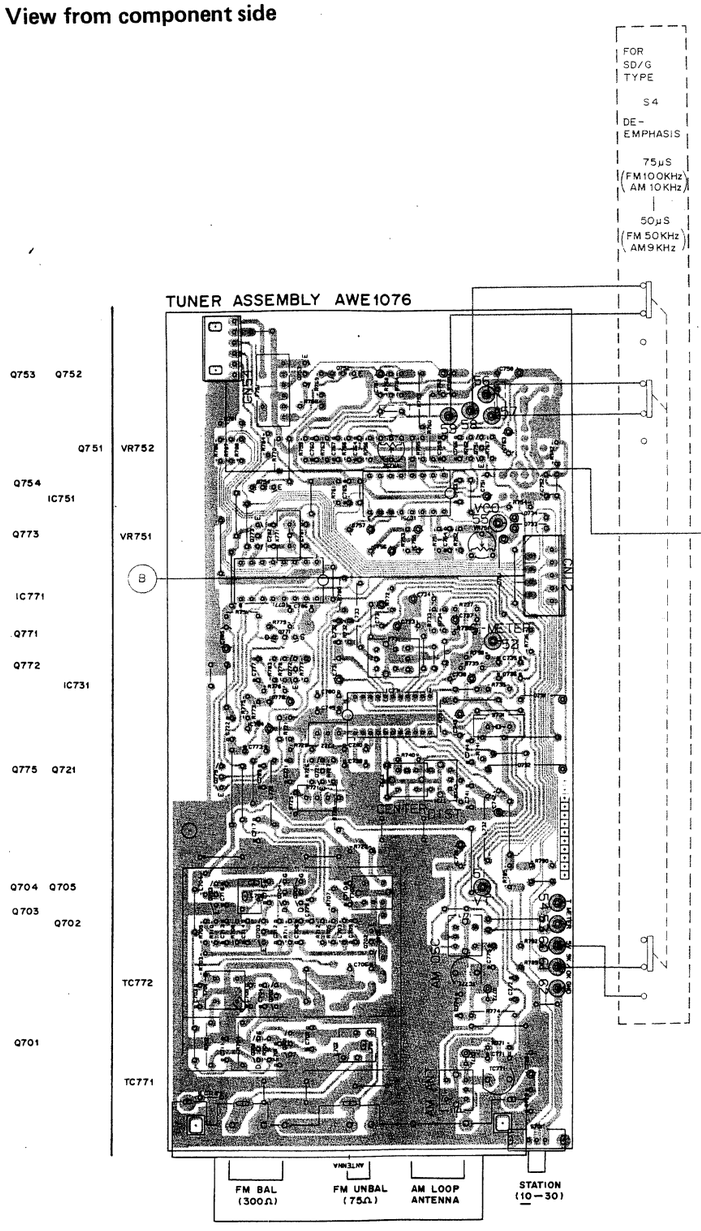


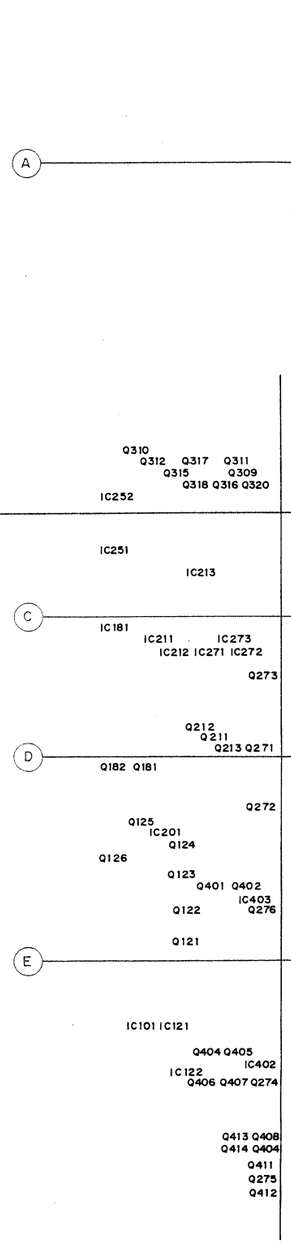
SURROUND AMP ASSEMBLY AWZ2470

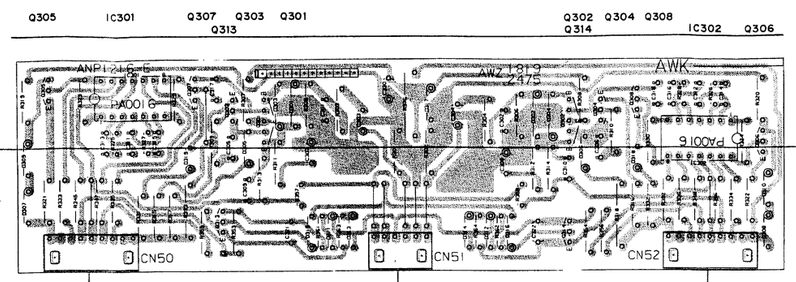


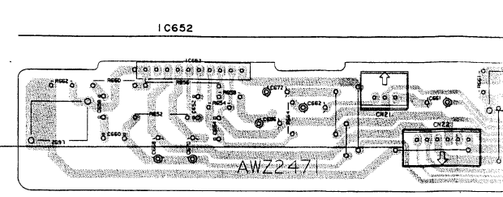
MULTI ROOM ASSEMBLY

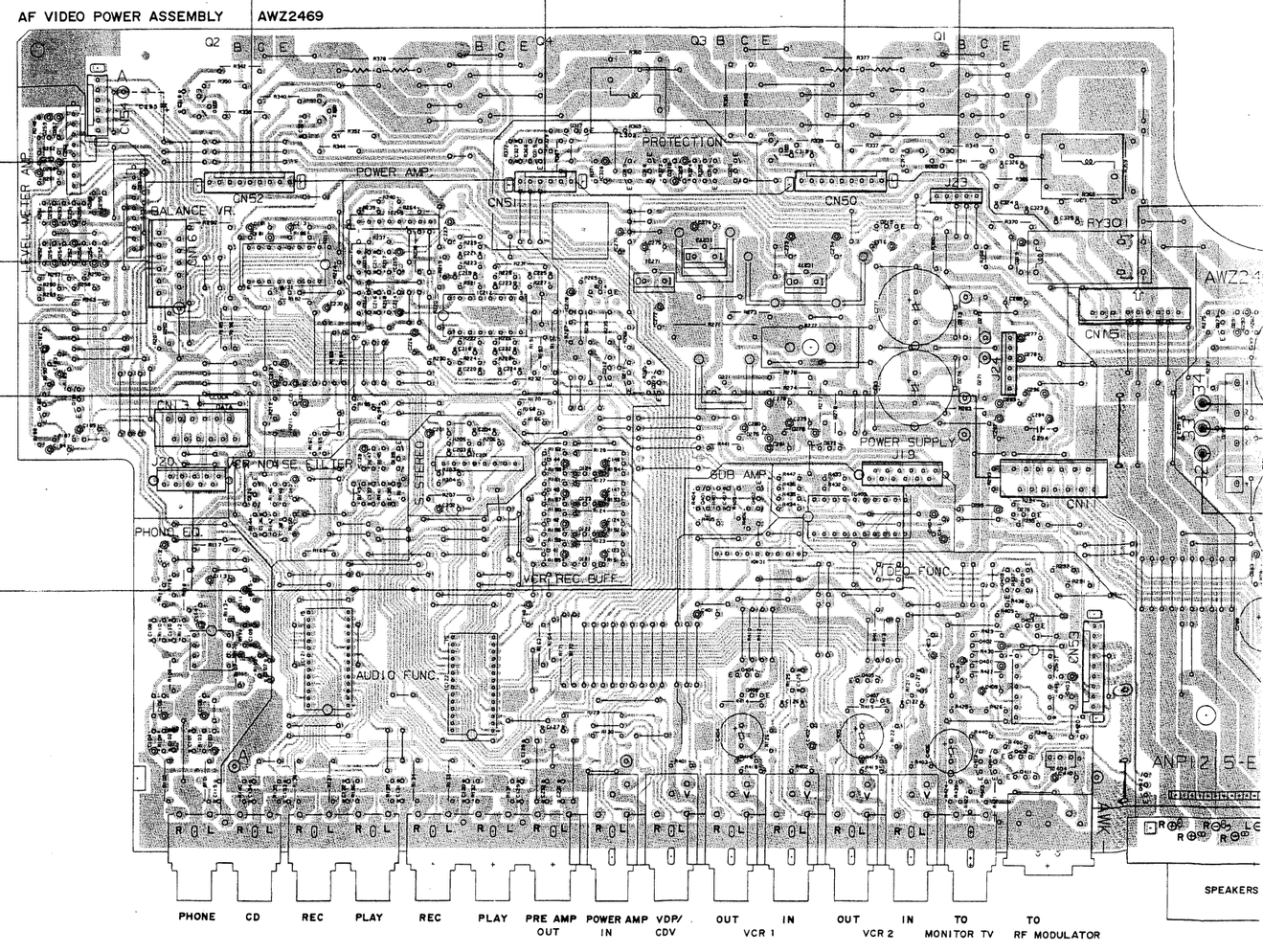
- **View from component side**



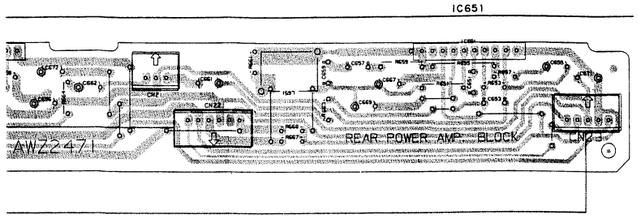




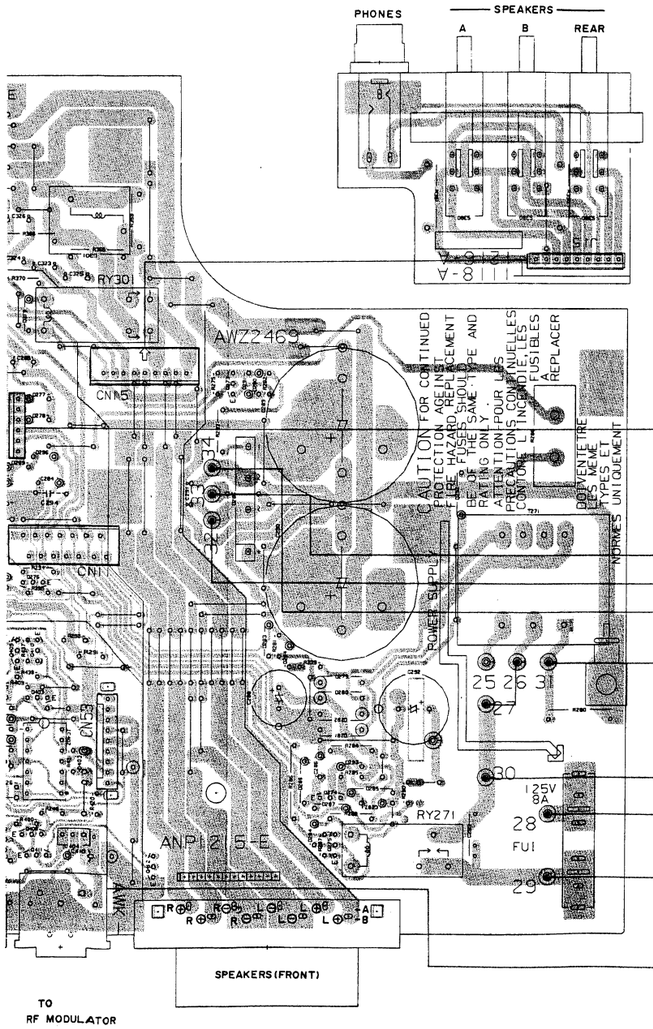




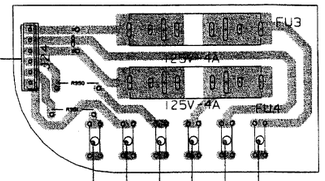
IC651



SP-A,B, REAR SWITCH ASSEMBLY



FUSE ASSEMBLY



⚠ T1 POWER TRANSFORMER

9 10 12 14 15

⚠ S1 IMPEDANOE SELECTOR
LESS THAN 8Ω — 8Ω OR MORE

25 26 31 27 30 28 29

125V 8A

⚠ AC POWER CORD
AC 120V 60Hz

SWITCHED 300W MAX ⚠ UNSWITCHED 100W MAX
AC OUTRETS

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

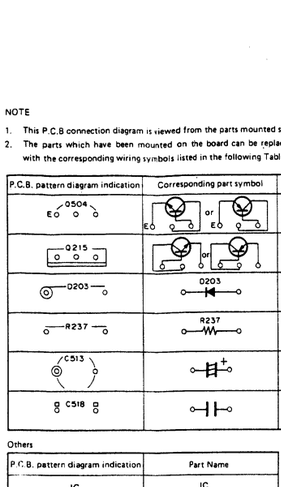
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
0504 E B C	E B C or E B C	Transistor
0215 B C E	E B C or E B C	Radiator type transistor
0203	0203	Diode
R237	R237	Resistor
C513	C513	Capacitor (Polarity)
C518	C518	Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

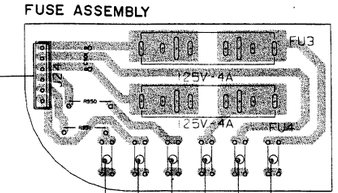
ENHANCER ASSEMBLY AWZ2473



Q468 IC451 Q470 Q469 Q452 Q453 Q454 Q467 Q458 Q451 Q456 Q466 Q463 Q462 Q464 Q465 Q459 Q460 Q461 Q457

FOR SD/G TYPE

FUSE ASSEMBLY



⚠ T1 POWER TRANSFORMER

⚠ FU2

AF VIDEO POWER ASSEMBLY AWZ2469

⚠ S2 VOLTAGE SELECTOR
220V
240V
110V
120V

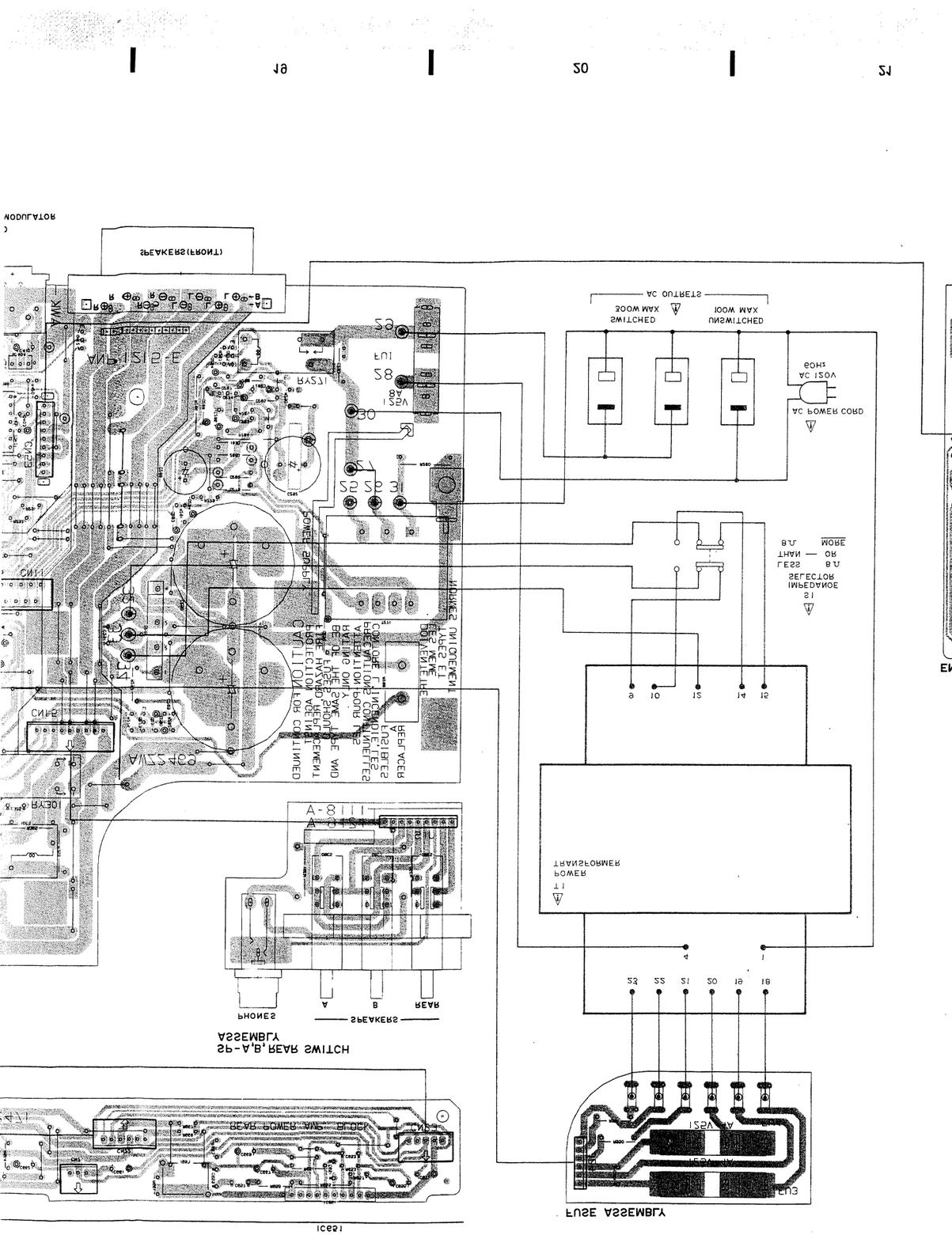
⚠ S3 VOLTAGE SELECTOR
240V/ 120–127V/ 110V/ 220V

25 26 31 27 30 28 29

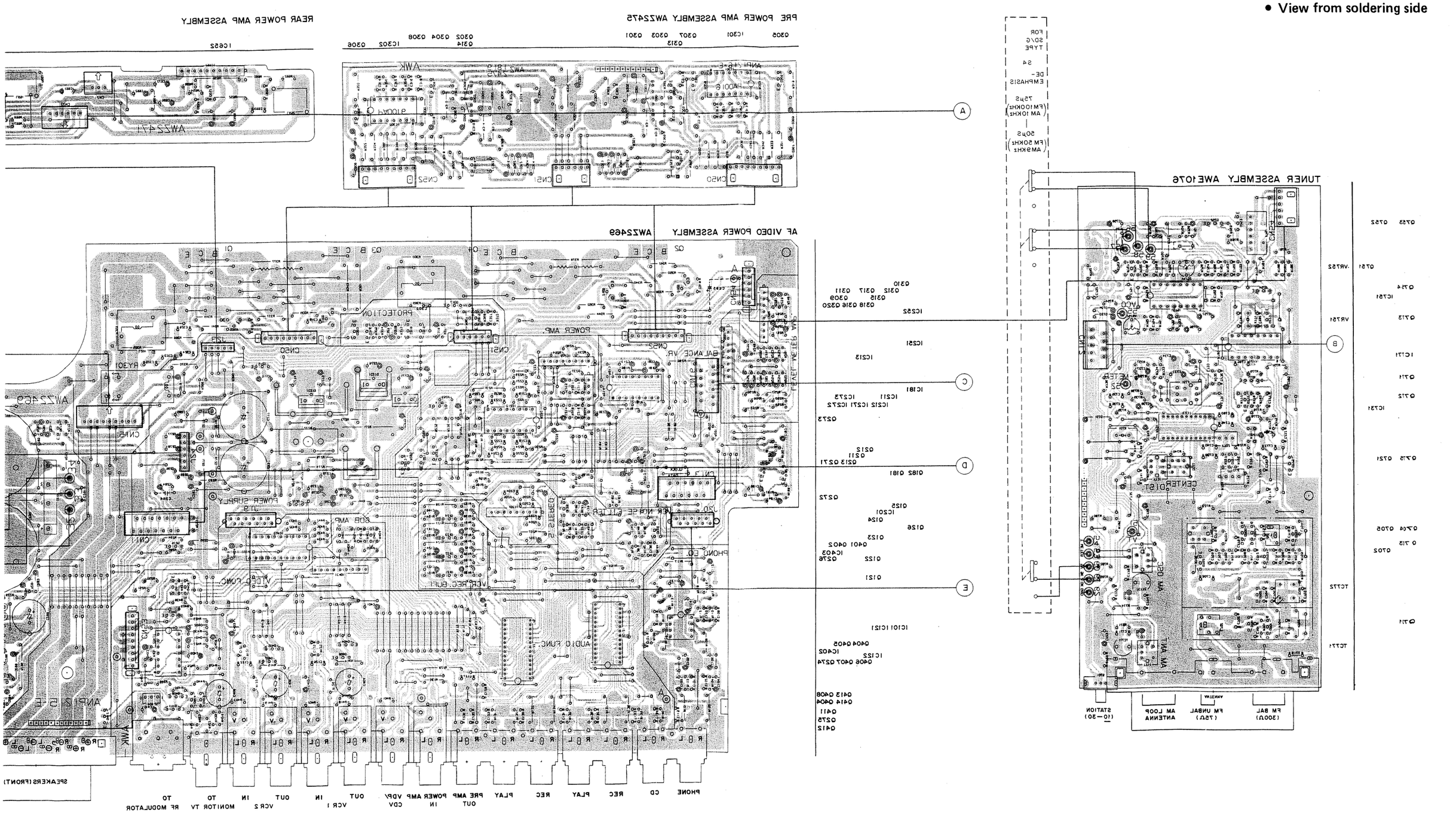
125V 8A

⚠ AC POWER CORD
AC 110V/ 120–127V 220/240V 50/60Hz

SWITCHED 300W MAX ⚠ UNSWITCHED 100W MAX
AC OUTRETS


SPEAKERS(FRONT)
ROTATOR MODULATOR
AC OUTLET
SWITCHED
UNSWITCHED
AC POWER CORD
SELECTOR
MORE
LESS
TRANSFORMER
POWER
FUSE ASSEMBLY
SP-A,B,REAR SWITCH ASSEMBLY
PHONES
SPEAKERS
REAR
ENHANCER ASSEMBLY
AT VIDEO POWER ASSEMBLY
FOR SDV2 TYPE
TO AT VIDEO ASSEMBLY

• View from soldering side



5. ELECTRICAL PARTS LIST

NOTES :

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	56×10^{1}	561	RD1/4PS 5 6 1 J
47k Ω	47×10^{3}	473	RD1/4PS 4 7 3 J
0.5 Ω	0R5		RN2H 0 R 5 K
1 Ω	010		RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	562×10^{1}	5621	RN1/4SR 5 6 2 1 F

Miscellaneous Parts

P. C. BOARD ASSEMBLIES

Mark	Symbol & Description	Part No.
	Tuner assembly	AWE1076
	AF video power assembly	AWZ2469
	Surround assembly	AWZ2470
	Enhancer assembly	AWZ2473
	μ COM display assembly	AWZ2474
	Pre power amp assembly	AWZ2475
	Rear Power amp assembly	
	Master volume assembly	
	SP−A, B, rear SW assembly	
	VR LED assembly	
	Fuse assembly	
	Multi room assembly	

OTHERS

Mark	Symbol & Description	Part No.
⚠	Q1, Q3	2SA1302
⚠	Q2, Q4	2SC3281
⚠	T1 Power transformer (AC120V)	ATS1146
⚠	AC socket 3P (AC OUTLET)	AKP−515
⚠	FU3, FU4 Fuse (4A/125V)	AEK−100
⚠	FU1 Fuse (8A/125V)	AEK−304
⚠	AC power cord	ADG1031
⚠	S1 Slide switch (SPEAKER IMPEDANCE)	AKX1004

Tuner Assembly (AWE1076)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC751	AN7470P
	IC731	LA1265S
	IC771	LM7001
	Q773, Q775	RN2201
	Q754	2SA933S
	Q751−Q753	2SC1740S
	Q772	2SC1740SLN
	Q703, Q721	2SC2668
	Q702	2SC2786
	Q704, Q705	2SK161
	Q701	2SK241
	Q771	2SK246
	D771, D772	SVC321C2−SP
	D731−D734, D751	1SS252
	D701−D703	1SV147

SWITCHES

Mark	Symbol & Description	Part No.
	S701 Slide switch (STATION)	ASH1027

COILS, TRANSFORMERS AND FILTERS

Mark	Symbol & Description	Part No.
	T771 AM ANT transformer	ATB−095
	L771 AM OSC coil	ATB−100
	T701 FM RF transformer	ATC−194
	L701 FM coil	ATC1001
	L702 FM coil	ATC1002
	L705 FM coil	ATC1003
	T702 FM Matching transformer	ATE−063
	T732 FM detection transformer	ATE1001
	T731 FM detection transformer	ATE1002
	F721 FM ceramic filter	ATF−107
	F722 FM ceramic filter	ATF−119
	F751 Low−pass filter	ATF−164
	F731 AM ceramic filter	ATF1042
	L703, L704, L732, L733, L772 Inductor	LAU2R2M
	L731 Inductor	LTA472J

CAPACITORS

Mark	Symbol & Description	Part No.
	TC771, TC772 Ceramic trimmer	ACM-015
	C764	CCCSL121J50
	C708	CCDCH010C50
	C706	CCDCH020C50
	C774	CCDCH070D50
	C713, C779, C781, C782	CCDCH150J50
	C714	CCDCH330J50
	C701, C704, C705	CCDRH330J50
	C702	CCDRH390J50
	C744	CCDSL221J50
	C745	CCDSL470J50
	C716	CCDTH180J50
	C715	CCMCH080D50
	C709	CCMSL101J50
	C752	CEANP3R3M50
	C757	CEASR22M50
	C778	CEASR47M50
	C742	CEAS0R1M50
	C743	CEAS010M50
	C756	CEAS1R5M50
	C731, C737, C776	CEAS100M50
	C751	CEAS101M16
	C738	CEAS2R2M50
	C734, C755	CEAS3R3M50
	C784, C785	CEAS330M16
	C733, C761, C762	CEAS4R7M50
	C723, C758, C763	CEAS470M16
	C736	CFTXA683J50
	C721, C722, C771-C773, C777, C780, C786	CGMYX103M16
	C735	CKCYB472K50
	C717, C732, C739, C740, C753, C765	CKCYX473M25
	C703, C710-C712, C719, C720	CKDYF103Z50
	C741	CKDYF223Z50
	C783	CKDYX473M25
	C759, C760	CQMA102J50
	C766, C767	CQMA561J50
	C775	CQSA431J50
	C754	CQSA471J50

RESISTORS

Mark	Symbol & Description	Part No.
	VR752 Semi-fixed (220k)	VRTB6VS224
	VR751 Semi-fixed (VCO ADJ) (4.7k)	VRTB6VS472
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	X771 Crystal resonator	ASS1005
	X731 Ceramic resonator	ATF1027
	Terminal 4P (ANT)	AKA1003
	CN12 9P connector	KPE9

AF Video Assembly (AWZ2469)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC401	CX-894
	IC403	CXD1067P
	IC181	CXD1120P-1
	IC201, IC213, IC251, IC252	M5218LF
	IC211	M5220L
	IC101	M5220P
	IC402	TC4066BP
	IC121, IC122	TC9164N
	IC212	TC9184P
	IC404	UPC78L05
	IC271, IC272	UPC78M12H
	IC273	UPC78M15H
	Q215, Q409, Q412	RN1203
	Q410, Q411	RN2203
	Q214, Q315, Q401	2SA1048
	Q311, Q312	2SA1306
	Q271	2SB834
	Q309, Q310	2SC3298
	Q320	2SC2240
	Q121-Q126, Q181, Q182, Q211, Q212, Q273, Q275, Q276, Q316-Q319, Q402, Q403, Q406-Q408, Q471	2SC2458
	Q413, Q414	2SC1815
	Q213, Q404, Q405	2SC2878
	Q272, Q274	2SC3377
	D286	D5SB20F
	D318	HZS9AL
	D275	RD15ESB
	D181	RD5.1ESB
	D283	RD5.1ESB1
	D404	RD5.6ESB
	D276	RD5.6ESB1
	D253, D254, D258	RD5.6ESB3
	D285	RD6.2ESB3
	D289	RD8.2ESB1
	D211, D212	RD9.1ESB
	D251, D252, D255-D257, D259, D277, D278, D284, D290, D291, D293-D296, D319, D401-D403	1SS252
	D287	1S1555
	D271-D274	10E2FD
	D279-D282, D288, D292	11E2

RELAYS

Mark	Symbol & Description	Part No.
	RY301 Relay (PROTECTION)	ASR-112
⚠	RY271 Relay (POWER)	ASR101?

COILS AND TRANSFORMERS

Mark	Symbol & Description	Part No.
	L301, L302 AF choke coil	ATH100?
⚠	T271 Power transformer (AC120V)	ATT101?

CAPACITORS

Mark	Symbol & Description	Part No.
	C293 (0.01 μ F/AC400V)	ACG1002
	C291 (0.01 μ F/AC150V)	ACG1005
	C292 (47 μ F/5.5V)	ACH1011
	C277, C283 (4300 μ F/35V)	ACH1021
	C289, C290 (8200 μ F/71V)	ACH1074
	C317-C320	CCCSL101K500
	C101	CCCSL221J50
	C102	CCDSL221J50
	C121, C122, C125-C134	CCMSL101J50
	C407	CCMSL330J50
	C216, C217	CCMSL680J50
	C103, C104	CEANL100M16
	C285	CEANP3R3M50
	C251-C253	CEASR47M50
	C139, C140, C148, C214, C215, C284, C411	CEAS010M50
	C295	CEAS0R1M50
	C201, C226, C227	CEAS100M25
	C181	CEAS100M50
	C329	CEAS101M16
	C113, C114	CEAS101M25
	C282	CEAS101M35
	C406	CEAS102M10
	C116, C274	CEHAQ010M50
	C111, C112	CEAS2R2M50
	C281	CEAS220M16
	C409	CEAS220M50
	C272	CEAS221M35
	C273	CEHAQ470M16
	C123, C124, C141-C144, C146, C147, C182-C185, C202, C213, C228, C230, C410	CEAS4R7M50
	C211, C212, C271, C278, C279, C286, C287, C401-C403, C408	CEAS470M16
	C275, C280	CEAS470M25
	C288	CEAS471M25
	C105, C106, C328, C404, C405	CEAS471M6
	C276	CEHAQ101M35
	C323-C326	CFTXA104J50
	C137, C138, C220, C221, C224, C225	CFTXA153J50
	C107, C108	CFTXA243J50
	C204	CQMA332J50
	C203	CFTXA333J50
	C109, C110, C218, C219	CFTXA823J50
	C115	CKCYX473M25
	C294	CKDYF103Z50
	C327	CKDYX473M25
	C231, C232	CQMA222J50
	C222, C223	CQMA272J50
	C135, C136	CQMA682J50

RESISTORS

Mark	Symbol & Description	Part No.
	R377, R378 (0.33 Ω, 5W×2)	ACN-139
	R280 (2.2M Ω, ½W)	ACN-209
	R341-R344	RFA¼PS4R7J
	R359, R360, R365, R366	RS1LMF100J
	R271	RS3LMF330J
	R272, R288	RT5PH□□□K
	R117, R118, R273, R276, R277, R283, R284, R289, R297, R337-R340, R349-R352, R370	RD¼PMF□□□J
	R296, R414, R415, R421	RD¼PM□□□J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Pin jack 4P	AKB1007
	Pin jack 6P	AKB1008
	Pin jack 3P	AKB1021
	Pin jack 4P	AKB1033
	Pin jack 2P	AKB1060
	Pin jack 3P	AKB1061
	Terminal 8P (FRONT SPEAKERS)	AKE-111
	DIN socket 5P (VIDEO OUT)	AKP-081
	Screw	ABA1012
	CN15 9P connector	KPC9
	CN16 11P connector	KPE11
	CN13 12P connector	KPE12
	CN11 14P connector	KPE14

Surround Assembly (AWZ2470)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC621	CXD1120P-1
	IC561	LA2730
	IC533	LM3364K-15
	IC532	M5019P
	IC501	M5201P
	IC623	M5218LF
	IC562, IC591	M5218PF
	IC622	M5220P
	IC531	M5233P
	IC594	TC4066BP
	Q503, Q591	RN1203
	Q505, Q592, Q623	2SA1048
	Q593, Q594	2SC2458
	Q621, Q622	2SC2878
	D593	HZS6AL
	D591, D592	RD10ESB1
	D627	RD5.1 ESB
	D629, D630	RD5.6 ESB3
	D531-D535, D594, D621-D624, D628, D631	1SS252

RELAYS

Mark	Symbol & Description	Part No.
	RY501 Relay (REAR SP ON/OFF)	ASR1005

COILS

Mark	Symbol & Description	Part No.
	L531 Inductor (2.2 μ H)	LAU2R2M

CAPACITORS

Mark	Symbol & Description	Part No.
	C565	CCMSL470J50
	C538	CEANP010M50
	C542	CEANP4R7M35
	C571	CEASR33M50
	C628, C629	CEASR47M50
	C501, C502, C505, C553, C561, C562, C564, C566, C567, C574, C591	CEAS010M50
	C531, C568, C594, C595, C621–C625	CEAS100M50
	C534, C549, C576	CEAS101M10
	C503, C504	CEAS101M25
	C575, C631	CEAS220M16
	C633, C634	CEAS221M10
	C548, C592, C593	CEAS470M10
	C545	CEAS470M16
	C544	CFTXA103J50
	C539, C543, C572	CFTXA104J50
	C635, C636	CFTXA123J50
	C570, C573	CFTXA333J50
	C551, C552	CFTXA823J50
	C533, C550	CGMYX103M16
	C630	CKCYX103M25
	C563	CKMYB471K50
	C577, C637, C638	CQMA472J50
	C532, C536, C540	CQMA562J50
	C569	CQMA682J50
	C537, C541	CQSA561J50

RESISTORS

Mark	Symbol & Description	Part No.
	VR501 Variable resistor (100kB)	ACS1024
	VR502 Semi-fixed (22k)	VRTB6VS223
	R619	RD¼PMF100J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	X531 Ceramic resonator	ASS1016
	Terminal 4P (REAR SPEAKERS)	AKE1012
	Mini jack 2P (CONTROL IN/OUT)	AKN1006
	Pin jack 4P	AKB1007
	CN20 10P connector	KPE10
	CN19 12P connector	KPE12
	CN17 7P connector	KPE7

Enhancer Assembly (AWZ2473)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC451	HA17555PS
	Q467, Q469	2SA1048
	Q451, Q452, Q456–Q462, Q464–Q466, Q468, Q470	2SC2458
	Q463	2SC2878
	Q453–Q455	2SC3064
	D451–D453	1SS252

COILS

Mark	Symbol & Description	Part No.
	L454 Inductor	LAU100K
	L451, L457 Inductor	LAU101K
	L453 Inductor	LAU180K
	L452 Inductor	LAU2R2M
	L456 Inductor	LAU220K
	L455 Inductor	LAU270K

CAPACITORS

Mark	Symbol & Description	Part No.
	C453	CCDCH101J50
	C475	CCDSL151J50
	C451	CCMCH180J50
	C457–C459, C467	CCMCH220J50
	C454	CCMSL080D50
	C468	CCMSL220J50
	C465	CCMSL470J50
	C472	CCMSL680J50
	C456	CEAS100M25
	C462, C464	CEAS100M50
	C460, C461, C463, C471, C473, C474	CEAS470M16
	C466	CFTXA104J50
	C455	CGMYX103M16
	C469	CKCYX103M25
	C452	CQSA102J50
	C470	CQSA681J50

RESISTORS

Mark	Symbol & Description	Part No.
	All resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Socket 9P	AKP-045

μ COM Display Assembly (AWZ2474)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC801	PDG041
	Q811	RN1203
	Q801－Q810	2SC2458
	D801－D812	1SS252

SWITCHES

Mark	Symbol & Description	Part No.
	S801－S851 Tact switch (TUNING+, FM, AUTO/MANUAL, REAR LEVEL+, BALANCE L, TREBLE+, BASS+, TUNING－, AM, DIRECT ACCESS, REAR LEVEL－, BALANCE R, TREBLE－, BASS－, SC1, SC6, FM MODE, S/S, MUTING, A-MEMORY, VCR NOISE FILTER, SC2, SC7, MEMORY, VIDEO SIGNAL SELECTOR, TAPE2/DAT2 MONITOR, A-SELECT, V-ENHANCER, SC3, SC8, MEMORY SCAN, VCR1, TAPE1/ DAT1, DELAY TIME, SURR OFF, SC4, SC9, S-NAME, VCR2, CD, DOLBY SURR, TV ANT, SC5, SC10, VDP/CDV, TUNER, STADIUM, POWER, PHONO, S-SURROUND RETERN)	ASG－711

COILS

Mark	Symbol & Description	Part No.
	L801 Inductor	LAU101K

CAPACITORS

Mark	Symbol & Description	Part No.
	C803	CEJAR47M50
	C802	CEJA0R1M50
	C801, C804	CEJA101M6
	C805	CKMYF222Z50

RESISTORS

Mark	Symbol & Description	Part No.
	VR802 Variable resistor (10k－B) (ENHANCER)	ACU1029
	VR801 Variable resistor (100k－B) (SPLIT SCREEN)	ACU1028
	R820	RD¼PM103J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	V801 Fluorescent tube	AAV1055
	X801 Ceramic resonator	ASS1022
	Remote sensor unit	AXX1010

Pre Power Amp Assembly (AWZ2475)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC301, IC302	PA0016
	Q305, Q306	2SA1145
	Q301, Q302	2SA979
	Q303, Q304, Q313, Q314	2SC2240
	Q307, Q308	2SC2705
	D317	RD24ESB
	D301－D316, D318, D319	1SS252

CAPACITORS

Mark	Symbol & Description	Part No.
	C311, C312	CCCSL151J50
	C301, C302	CCCSL221J50
	C313－C316	CCMSL680J50
	C321, C322	CEANP2R2M100
	C303, C304	CEAS2R2M50
	C317, C318	CCCSL020C500
	C330	CEAS220M50
	C307, C308	CEXA471M16
	C305, C306	CKCYB331K50
	C309, C310	CMA270J500

RESISTORS

Mark	Symbol & Description	Part No.
	R315－R318, R321, R322, R331, R332	RFA¼PS□□□J
	R376	RS2LMF222J
	R305, R306, R311－R314	RDR¼PM□□□J
	R333－R336, R345－R348, R353－R356	RD¼PMF□□□J
	R301－R304, R307－R310, R319, R320, R323, R324, R329, R330, R392, R393	RD¼PM□□□J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Socket 9P	AKP－046

Rear Power Amp Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
⚠	IC651, IC652	UPC1 188H

COILS

Mark	Symbol & Description	Part No.
	L651, L652 AF choke coil	ATH1 011

CAPACITORS

Mark	Symbol & Description	Part No.
	C651, C652	CCMSL220J50
	C667, C668, C671, C672	CEAS100M50
	C661, C662	CEAS2R2M50
	C655, C656	CEAS220M25
	C669, C670	CEAS330M50
	C657–C660	CFTXA223J50
	C653, C654	CKMYB471K50

RESISTORS

Mark	Symbol & Description	Part No.
	R659, R660	RD¼PMF100J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	CN21 3P connector	KPC3
	CN23 5P connector	KPC5
	CN22 6P connector	KPC6

Master Volume Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC241	M5220P
	IC242 Inductor	TA7291S
	Q241	RN2201

COILS

Mark	Symbol & Description	Part No.
	L241, L242 Inductor	LAU560K

CAPACITORS

Mark	Symbol & Description	Part No.
	C245, C246	CEAS100M25
	C243, C244	CEAS4R7M50
	C247	CEAS470M25
	C241, C242	CKDYX473M25

RESISTORS

Mark	Symbol & Description	Part No.
	VR241 Variable resistor (100k) (MASTER VOLUME)	ACX1015
	R245	RD¼PM561J
	Other resistors	RD⅛PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	CN14 3P connector	KPE3

SP–A, B, Rear SW Assembly

SWITCHS

Mark	Symbol & Description	Part No.
	S380 Push switch (SPEAKERS A, B, REAR)	SUL6LXXXS

RESISTORS

Mark	Symbol & Description	Part No.
	R390, R391	RS2LMF331J

OTHERS

Mark	Symbol & Description	Part No.
	Jack (PHONES)	AKN1002

VR LED Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	D900	AEL1053

OTHERS

Mark	Symbol & Description	Part No.
	Terminal board	AKF1006

Fuse Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C901 (0.01 μ F/AC150V)	ACG1005

RESISTORS

Mark	Symbol & Description	Part No.
	R950, R951	RD¼PMF100J

Multi Room Assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	D960, D961	1SS252

RESISTORS

Mark	Symbol & Description	Part No.
	R960	RD⅛PM472J

OTHERS

Mark	Symbol & Description	Part No.
	Mini jack	AKN1020

6. ADJUSTMENTS

6.1 TUNER SECTION

FM Tuner Section

- Connect the FM signal generator (FM SG) to the FM ANTENNA 300Ω terminal through a 300Ω dummy antenna.
- Set the AUTO/MANUAL switch to the MANUAL position and the FUNCTION switch to the FM.

FM MONO ADJUSTMENT

Step	FM SG (1 kHz±75 kHz dev.)		Frequency display	Adjustment point	Adjustment procedure
	Frequency	Level			
1	No signal		87.5 MHz	—	Check pin 51 (3.4±1.5V) of tuner assembly.
2			108.0 MHz	—	Check pin 51 ($8.7^{+2.5V}_{-2.0V}$) of tuner assembly.
3	98 MHz	20~30 dB	98 MHz	T701, L702 T702	Set the output from pin 52 of tuner assembly to maximum level.
4	98 MHz	60 dB	98 MHz	T732	Adjust voltage across pins 53 and 54 of tuner assembly is within. (±10 mV)
5	98 MHz	60 dB	98 MHz	T731	Minimize distortion.
6	Repeat steps 4 and 5 until both specification ratings are satisfied.				

FM MPX ADJUSTMENT

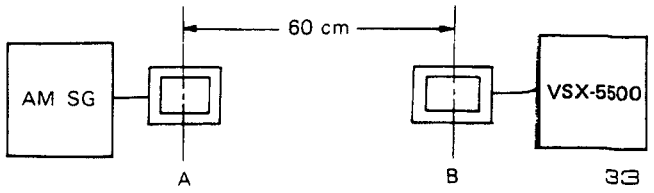
7	98 MHz	80 dB	98 MHz	VR751	Adjust the frequency at pin 55 of tuner assembly to 75.8 kHz (±100 Hz)
	No modulation				
8	98 MHz	60 dB	98 MHz	T702	Minimize distortion in both left and right channel outputs (adjust T702 to within ±9°)
	Stereo modulation*				
9	98 MHz	60 dB	98 MHz	VR752	Maximize separation.
	Stereo modulation*				
10	98 MHz	8~33 dB	98 MHz	—	Confirm that TUNER IND and STEREO IND become lit.
	Stereo modulation*				
* Stereo modulation: 1 kHz L (or R) ±68.25 kHz dev. Pilot 19 kHz±6.75 kHz dev.					

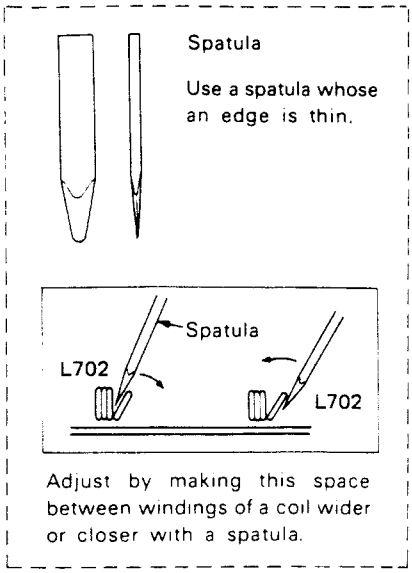
AM (MW) Tuner Section

- Connect loop antenna to the AM signal generator (AM SG), and connect the Loop antenna (of the set) to AM ANTENNA terminal.
- Set the FUNCTION switch to the AM (MW)

Step	AM SG (400Hz, 30% MOD)		Frequency display	Adjustment pint	Adjustment procedure
	Frequency	Level			
1	No signal		530 kHz	L771	Set pin 51 of tuner assembly to 1.2V (±0.05V)
2			1700 kHz	TC772	Set pin 51 tuner assembly to 10.0V (±0.1V)
3	Repeat steps 1 and 2 until both specification ratings are satisfied.				
4	600 kHz	40 dB	600 kHz	T711	Set the output from pin 52 of tuner assembly to maximum level.
5	1400 kHz	40 dB	1400 kHz	TC771	
6	Repeat steps 4 and 5 until both specification ratings are satisfied.				
7	1000 kHz	60 dB	1000 kHz	Confirm that TUNER IND becomes lit.	

- The distance between AM SG side loop antenna A and the receiver side (VSX-5500) loop antenna B, that is, from the center of A side loop antenna to that of B side loop antenna should be 60 cm.




Spatula
Use a spatula whose an edge is thin.
Spatula
L702
L702
Adjust by making this space between windings of a coil wider or closer with a spatula.

Tuner Assembly (AWE1076)

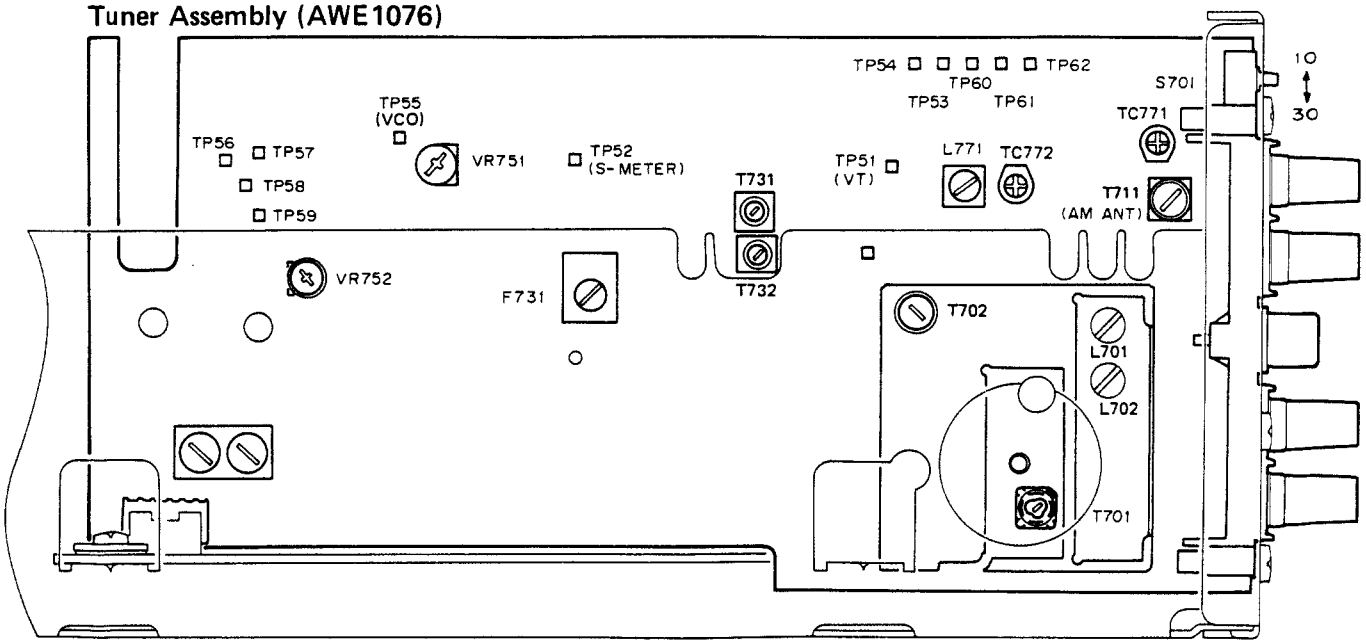


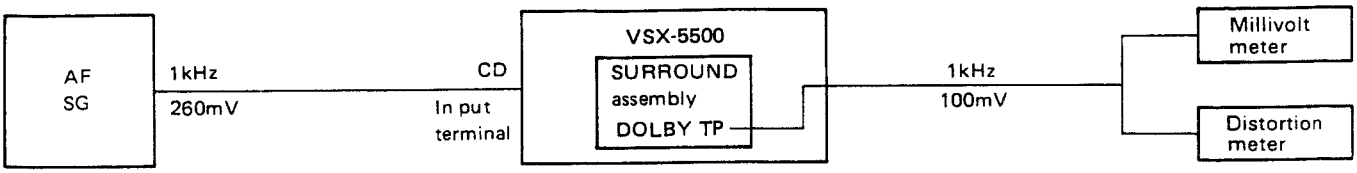
Fig. 6-1 Adjustment points

6.2 SURROUND AMP SECTION

• SURROUND LEVEL ADJUSTMENT

Preparation

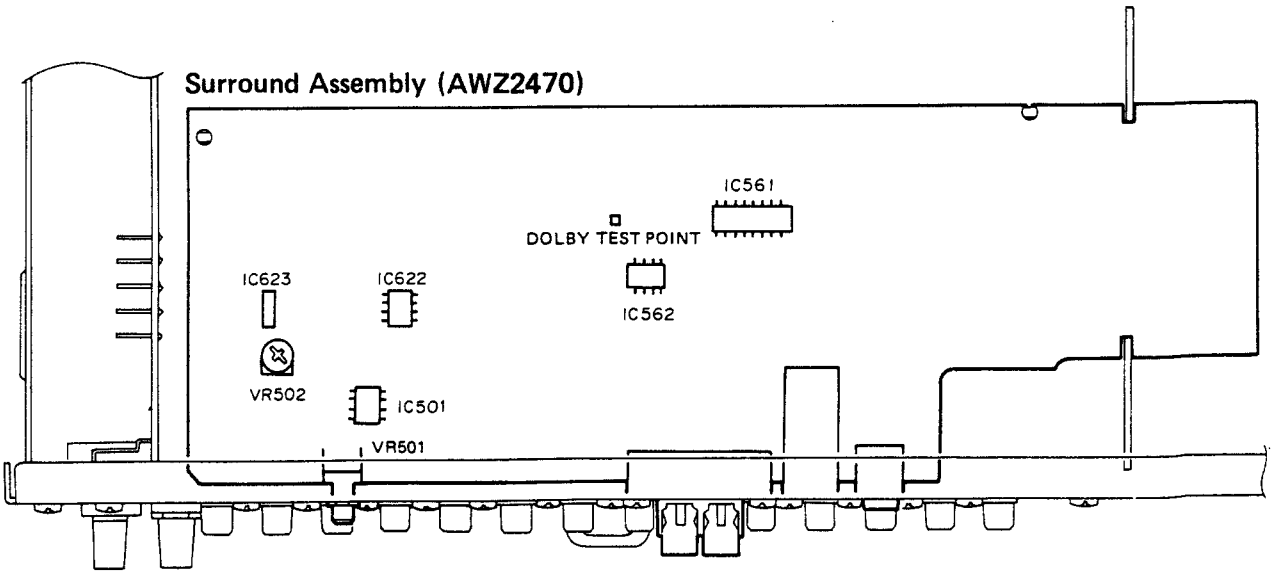
1) Adjust the SURROUND BALANCE VR (VR501) on the rear side to the center clicking position.
2) Set the SURROUND MODE to the ▯▯ SURROUND (DOLBY).
3) Input sine wave signal of 1kHz, 260mV to the CD input. Lch (or R ch) only.
(Be sure that the small signal assembly is operationg normally.)



Connection diagram

Adjusting method

1) Adjust with VR502 (LEVEL) so that the output of TP DOLBY of the SURROUND assembly becomes 100mV ±5mV.

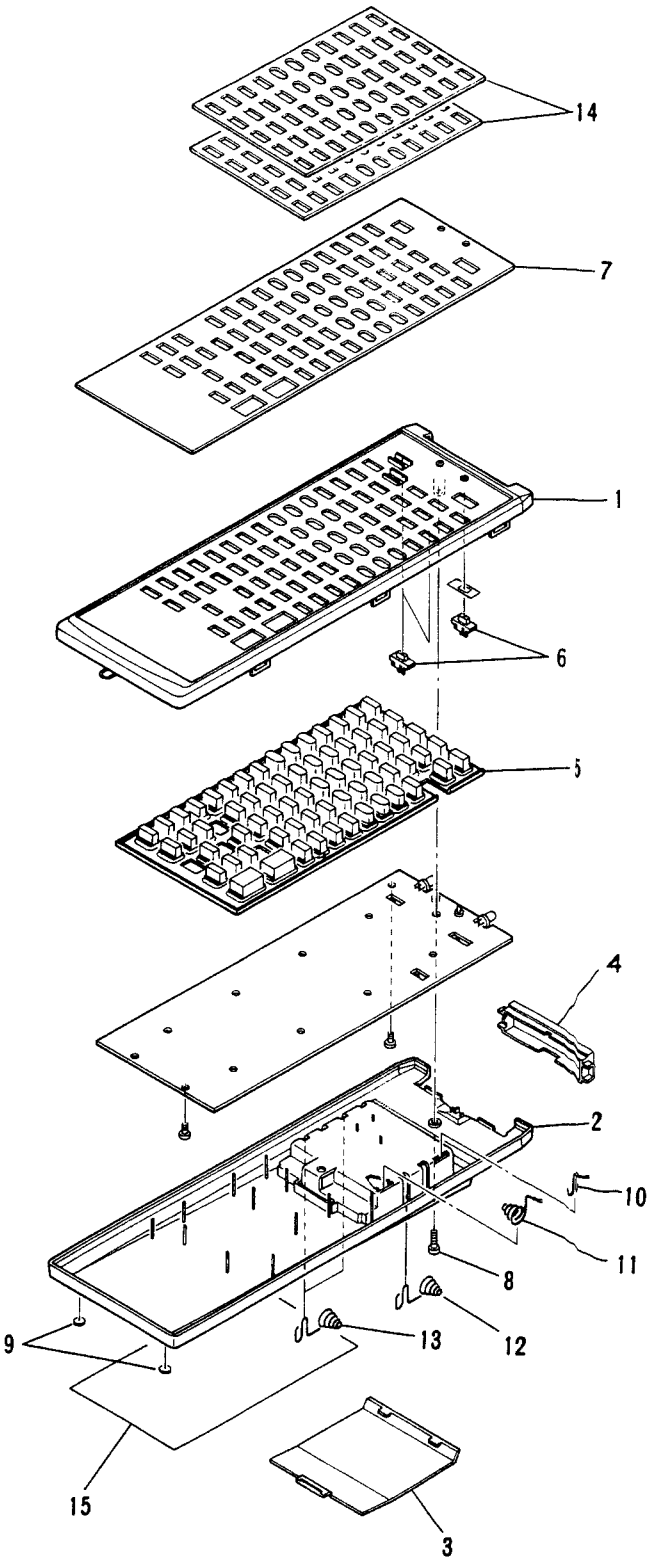


7. PROGRAMABLE REMOTE CONTROL UNIT FOR VSX-5500S/KUC TYPE (AXD1100)

7.1 EXPLODED VIEW AND PARTS LIST

Parts list of remote control unit

Mark	No.	Parts No.	Description
	1	AZH1033	Case (A)
	2	AZH1034	Case (B)
	3	AZH1035	Case (C)
	4	AZN1400	Filter
	5	AZA1192	Rubber sheet
	6	AZS1042	Knob
	7	AZA1190	Name plate
	8	AZB1124	Screw
	9	AZN1401	Leg
	10	AZB1274	Electrode spring
	11	AZB1275	Electrode spring
	12	AZB1276	Electrode spring
	13	AZB1277	Electrode spring
	14	AAK1439	Sheet
	15	AZA1191	Label



7.2 ELECTRICAL PARTS LIST

NOTES :

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	56×10^{1}	561	RD1/4PS 5 6 1 J
47k Ω	47×10^{3}	473	RD1/4PS 4 7 3 J
0.5 Ω	0R5		RN2H 0 R 5 K
1 Ω	010		RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	562×10^{1}	5621	RN1/4SR 5 6 2 1 F

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
	IC01	PD5108–A
	IC02	AZC1045
	IC03	AZC1046
	IC04	AZC1047
	IC05	AZC1048
	Q1, Q2	AZC1050
	Q3, Q4	AZC1051
	Q5	AZC1052
	D01, D02, D07–D15	AZC1233
	D03–D06	AZC1049
	PHD01	AZC1055
	LED01, LED02	AZC1054
	IED01, IED02	AZC1053

SWITCHES

Mark	Symbol & Description	Part No.
	S01, S02 Slide switch	AZC1079
	S04 Slide switch	AZC1081
	S05 Slide switch	AZC1080

CAPACITORS

Mark	Symbol & Description	Part No.
	C01 (220P)	AZC1058
	C02 (33P)	AZC1059
	C05, C06 (20P)	AZC1060
	C08 (0.01μF)	AZC1061
	C03, C04 (0.001μF)	AZC1062
	C11 (0.01μF)	AZC1063
	C10 (100P)	AZC1251
	C07 (4.7μF)	AZC1252
	C09 (1000μF)	AZC1255

RESISTORS

Mark	Symbol & Description	Part No.
	R01 (8.2k)	AZC1064
	R02 (4.7k)	AZC1065
	R03, R08 (33k)	AZC1066
	R05, R17 (10k)	AZC1068
	R06 (82k)	AZC1069
	R09 (6.8k)	AZC1070
	R10 (56k)	AZC1071
	R12 (1M)	AZC1072
	R07, R11, R30–R38 (100k)	AZC1073
	R19–R21 (2.2k)	AZC1074
	R13, R16 (680Ω)	AZC1075
	R15 (10Ω)	AZC1076
	R18, R22–R29 (47k)	AZC1077
	R14 (3.9Ω)	AZC1078
	R04 (560k)	AZC1256

OTHERS

Mark	Symbol & Description	Part No.
	X1 Resonator	AZC1057

7.3 P.C. BOARD PATTERNS

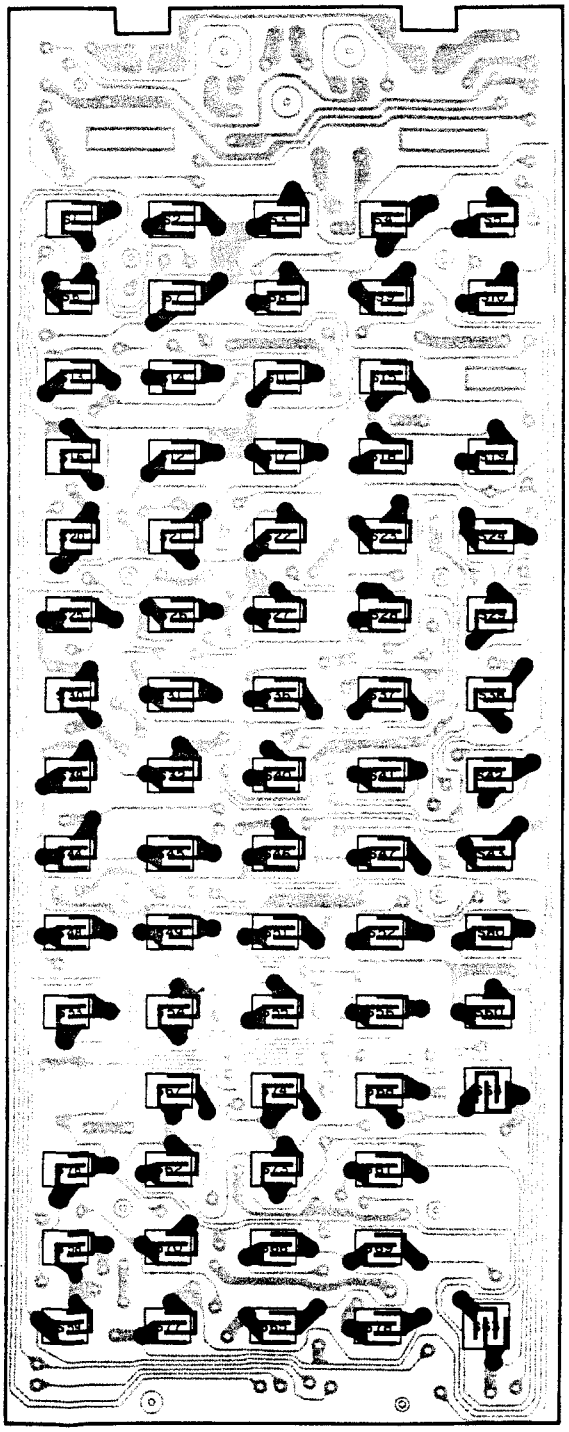
NOTE :

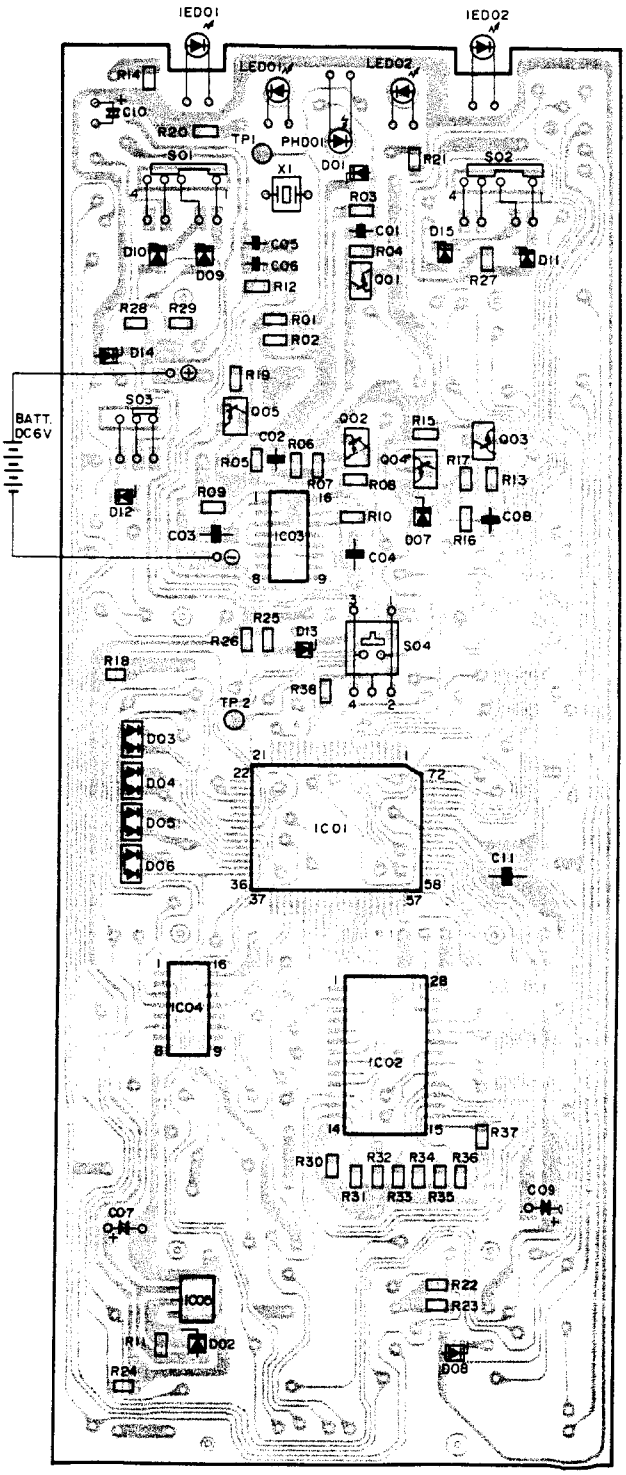
: Indicates a chip resistor.

: Indicates a chip capacitor.

: Indicates a chip transistor.

: Indicates a chip diode.





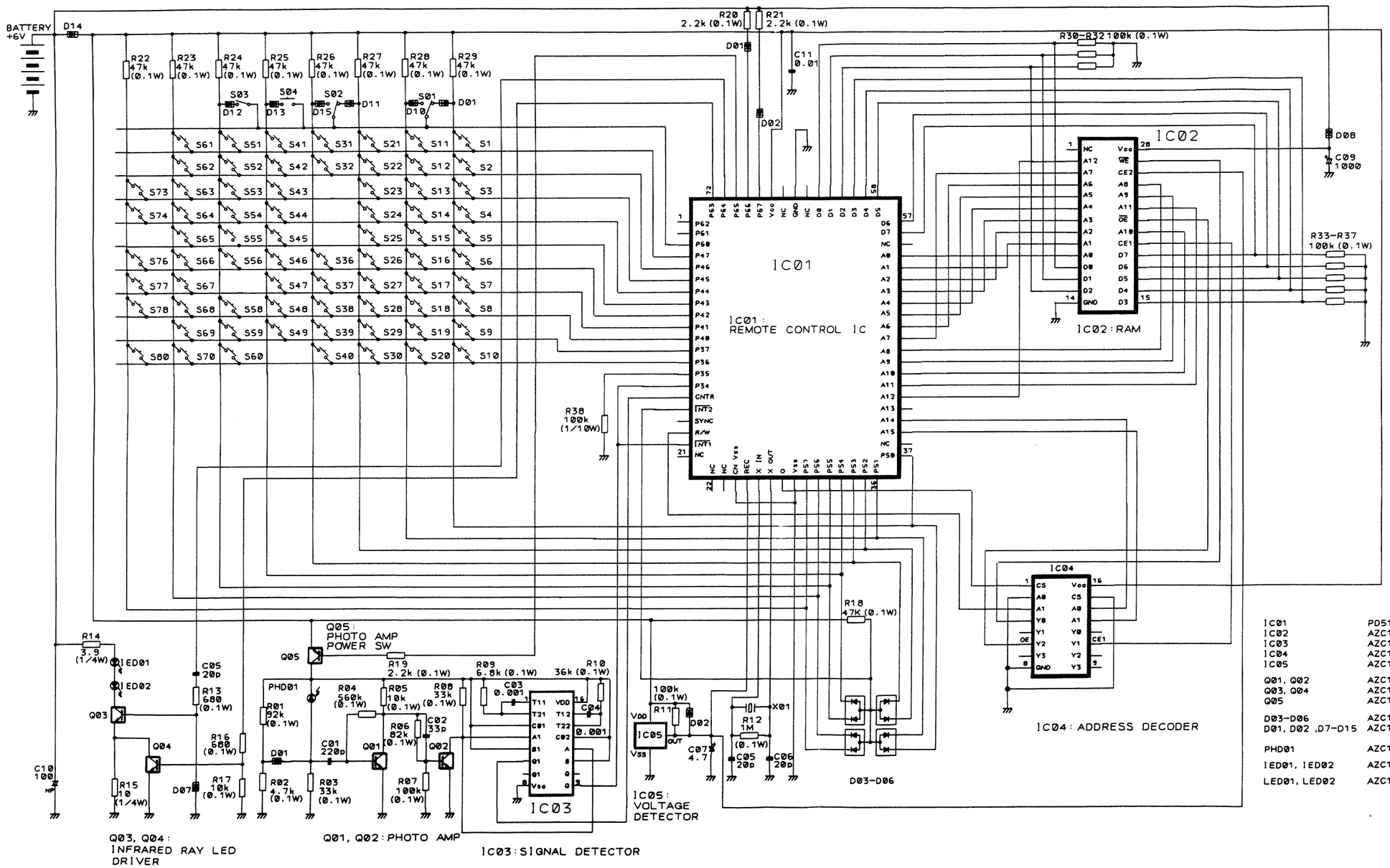
7.4 SCHEMATIC DIAGRAM

1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. OTHERS:
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.



The underline indicates the switch position

S01 : AUDIO/VIDEO/AUX
S02 : SR RECALL/USE/LEARN
S03 : DECK I/DECK II
S04 : RESET

TAPE/VCR
S-1 : VCR POWER
S-2 : ● TAPE/VCR
S-3 : ❚❚ TAPE/VCR
S-4 : ○/VCR CH−
S-5 : VCR CH+
S-6 : ◀◀
S-7 : ◀/ANT/ TV/VCR
S-8 : ■
S-9 : ▶
S-10 : ▶▶

CD/VDP
S-11 : DISC SEL /DISPLAY CALL
S-12 : ❚❚
S-13 : ⏮ CHP/FR−TM
S-14 : ⏭ /SEARCH
S-15 : PROG
S-16 : ◀◀
S-17 : ■
S-18 : ▶
S-19 : ▶▶

TUNER/CD/TV/VDP
S-20 : 1/13
S-21 : 2/14
S-22 : 3/15
S-23 : 4/16
S-24 : 5/17
S-25 : 6/18
S-26 : 7/19
S-27 : 8/20
S-28 : 9/21
S-29 : 0. 10/22
S-30 : 11/MEMORY/23
S-31 : 12/CLEAR/24

TUNER/CD/PHONO/AMP/TV
S-32 : BAND/DUAL

S-36 : 1·12/13·24/CH−RETURN
S-37 : FREQUENCY−/TV CHANNEL−
S-38 : FREQUENCY+/TV CHANNEL+
S-39 : TV POWER
S-40 : CD+10/TV FUNC CYCLIC
S-41 : PHONO ■/TV VOL−
S-42 : PHONO ▶/TV VOL+
S-43 : AMP DISPLAY/TV DISPLAY
S-44 : VCR 1
S-45 : VCR 2
S-46 : VCR 3
S-47 : VDP
S-48 : TV
S-49 : VIDEO

S-51 : TAPE 1/DAT
S-52 : TAPE 2
S-53 : LINE
S-54 : CD
S-55 : TUNER
S-56 : PHONO

S-58 : SLEEP
S-59 : RECEIVER POWER
S-60 : MUTING
S-61 : FRONT BAL.R
S-62 : FRONT BAL.L
S-63 : MASTER VOLUME−
S-64 : MASTER VOLUME+
S-65 : REAR LEVEL−
S-66 : REAR LEVEL+
S-67 : SURROUND MODE
S-68 : SURROUND DELAY TIME
S-69 : REAR BAL.R
S-70 : REAR BAL.L

S-73 : CENTER LEVEL−
S-74 : CENTER LEVEL+

S-76 : ACOUSTIC
S-77 : SP−A
S-78 : SP−B

S-80 : RETURN

IC01	PD5108-A
IC02	AZC1045
IC03	AZC1046
IC04	AZC1047
IC05	AZC1048
Q01, Q02	AZC1050
Q03, Q04	AZC1051
Q05	AZC1052
D03–D06	AZC1049
D01, D02 ,D7–D15	AZC1233
PHD01	AZC1055
IED01, IED02	AZC1053
LED01, LED02	AZC1054

8. FOR VSX−5400/KUC AND SD/G TYPES

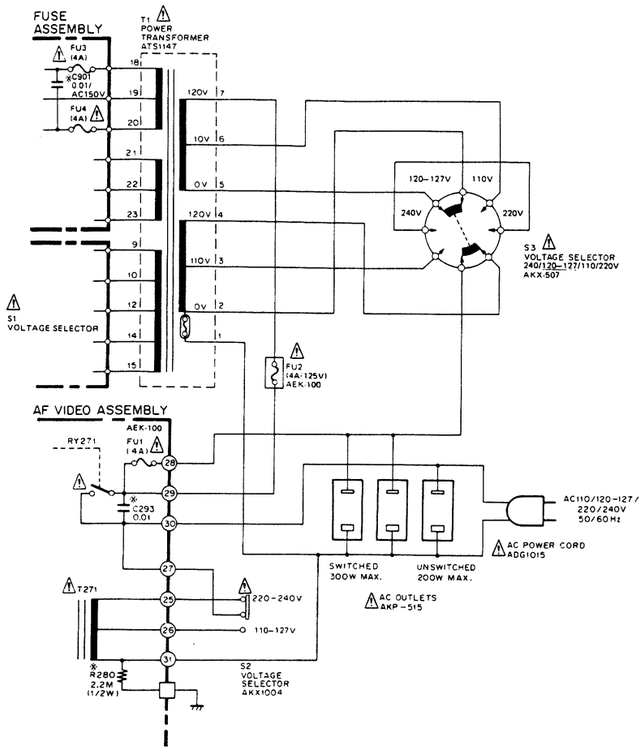
8.1 CONTRAST OF MISCELLANEOUS PARTS

NOTES :
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the impotance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The VSX−5400/KUC and SD/G types are the same as the VSX−5500S/KUC type with the exception of the following sections.

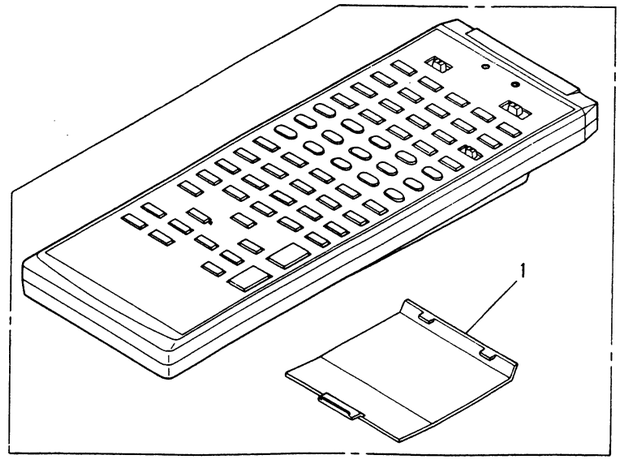
Mark	Symbol & Description	Part No.			Remarks
		VSX−5500S/KUC type	VSX−5400/KUC type	VSX−5400/SD/G type	
⚠	AC power cord	ADG1031	ADG1031	ADG1015	
⚠	FU1, FU2 Fuse (4A/125V)	.....	.....	AEK−100	
⚠	FU1 Fuse (8A/125V)	AEK−304	AEK−304	.....	
⚠	S3 Voltage selector	.....	.....	AKX−507	
⚠	S2 Voltage selector	.....	.....	AKX1004	
⚠	T1 Power transformer (AC120V)	ATS1146	ATS1146	.....	
⚠	T1 Power transformer (AC110/120−127/220/240V)	.....	.....	ATS1147	
	Slide switch	.....	.....	ASH−004	
	Fuse holder	.....	.....	AKR−032	
	Front panel	ANB1304	ANB1305	ANB1305	
	Template	AAK1439	.....	.....	
	Screw	.....	.....	VMZ26P040FZK	
	Remote control unit	AXD1100	AXD1101	AXD1101	
	Packing case	AHD1624	AHD1625	AHD1625	

8.2 SCHEMATIC DIAGRAM FOR VSX−5400/SD/G TYPE



8.3 REMOTE CONTROL UNIT (AXD1101)

Mark	No.	Parts No.	Description
	1	AZN1811	Case (C)



9. SPECIFICATIONS

Amplifier section

[POWER AMP IN]

Continuous average power output of 100 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.005 % total harmonic distortion (front); 15 watts* per channel, min., at 8 ohms, from 40 Hz to 15,000 Hz with no more than 0.4 % total harmonic distortion (rear).**

Continuous output power
- 1 kHz, 0.005%**, 8 Ω (Front) ..... 110 W + 110 W
- 1 kHz, 0.001%**, 8 Ω (Front) ..... 100 W + 100 W

Dynamic Power (2 Ω/4 Ω/8 Ω) ..... 230 W/200 W/150 W

Input (Sensitivity/Impedance)
- PHONO MM ..... 2.5 mV/50 kΩ
- CD, TAPE 1/DAT, TAPE 2, VDP/CDV, VCR 1, VCR 2 ..... 150 mV/50 kΩ
- FRONT POWER AMP IN ..... 1 V/50 kΩ

Phono Overload Level (T.H.D. 0.08 %, 1000 Hz)
- PHONO MM ..... 130 mV

Frequency Response
- PHONO MM ..... 20 Hz to 20,000 Hz ±0.3 dB
- CD, TAPE 1/DAT, TAPE 2, VDP/CDV, VCR 1, VCR 2 ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)
- TAPE 1/DAT REC, TAPE 2 REC ..... 150 mV/2.2 kΩ
- VCR 1 OUT, VCR 2 OUT ..... 150 mV/2.2 kΩ

Tone Control
- BASS 100 Hz ..... ±8 dB
- TREBLE 10 kHz ..... ±8 dB
- VCR Noise Filter ..... 100 Hz, 5 kHz: −3 dB

Loudness Contour ..... 6 dB (100 Hz)
3 dB (10 kHz)

Signal-to-Noise Ratio (IHF, short circuited, A network)
- PHONO MM ..... 82 dB
- CD, TAPE 1/DAT, TAPE 2, VDP/CDV, VCR 1, VCR 2 ..... 98 dB

Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]
- PHONO MM ..... 77 dB
- CD, TAPE 1/DAT, TAPE 2, VDP/CDV, VCR 1, VCR 2 ..... 80 dB

Surround Section
- CENTER OUT (L = R = 75 mV input) ..... 2 V/1 kΩ

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.*

** *Measured by Audio Spectrum Analyzer.*

VIDEO Section

Input (Level/Impedance)
VCR 1, VCR 2, VDP/CDV ..... 1 Vp-p/75 Ω

Output (Level/Impedance)
VCR 1, VCR 2, MONITOR ..... 1 Vp-p/75 Ω

Frequency Response
VCR 1, VCR 2, VDP/CDV, MONITOR ..... 5 Hz – 10 MHz $^{+0}_{-3}$ dB

Signal-to-noise ratio ..... 55 dB

Cross Talk ..... 55 dB

Enhancer (DETAIL) ..... 2 MHz ±3 dB

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz

Usable Sensitivity ..... Mono; 10.8 dBf, IHF (0.95 μV/75 Ω)

50 dB Quieting Sensitivity ..... Mono; 15.3 dBf, (1.6 μV/75 Ω)
Stereo; 37.0 dBf, (19.5 μV/75 Ω)

Signal-to-Noise Ratio ..... Mono; 80 dB (at 65 dBf)
Stereo; 75 dB (at 85 dBf)

Distortion ..... Mono; 0.08% (100 Hz)
0.08% (1 kHz)
0.2% (6 kHz)
Stereo; 0.2% (100 Hz)
0.15% (1 kHz)
0.3% (6 kHz)

Capture Ratio ..... 1 dB

Alternate Channel Selectivity ..... 65 dB (400 kHz)

Stereo Separation ..... 48 dB (1 kHz)

Frequency Response ..... 30 Hz to 15 kHz ($^{+0.5}_{-2.0}$)dB

Image Interference Ratio ..... 50 dB

IF Interference Ratio ..... 80 dB

AM Suppression Ratio ..... 55 dB

Spurious Interference Ratio ..... 70 dB

Antenna Input ..... 300 Ω balanced
75 Ω unbalanced

AM Tuner Section

Frequency range ..... When 10 kHz step: 530 kHz — 1,700 kHz
When 9 kHz step: 531 kHz — 1,602 kHz

Sensitivity (IHF, Loop antenna) ..... 300 μV/m

Selectivity ..... 30 dB

Signal-to-Noise Ratio ..... 50 dB

Image Interference Ratio ..... 35 dB

IF Interference Ratio ..... 65 dB

Antenna ..... Loop antenna

Miscellaneous

Power requirements
- U.S., Canadian models ..... AC 120V, 60 Hz
- Other destination models ..... AC 110/120–127/220/240V (switchable), 50/60 Hz

Power consumption
- U.S., Canadian models ..... 415 W, 540 VA
- Other destination models ..... 630 W
- In stand by condition ..... 3 W

AC Outlets
- SWITCHED x 2 ..... TOTAL 100 W MAX
- UNSWITCHED x 1
  - U.S., Canadian models ..... 200 W MAX
  - Other destination model ..... 100 W MAX

Dimensions ..... 420 (W) x 124 (H) x 401 (D) mm
16-7/16 (W) x 4-7/8 (H) x 15-13/16 (D) in

Weight (without package) ..... 10 kg (22 lb 1 oz)

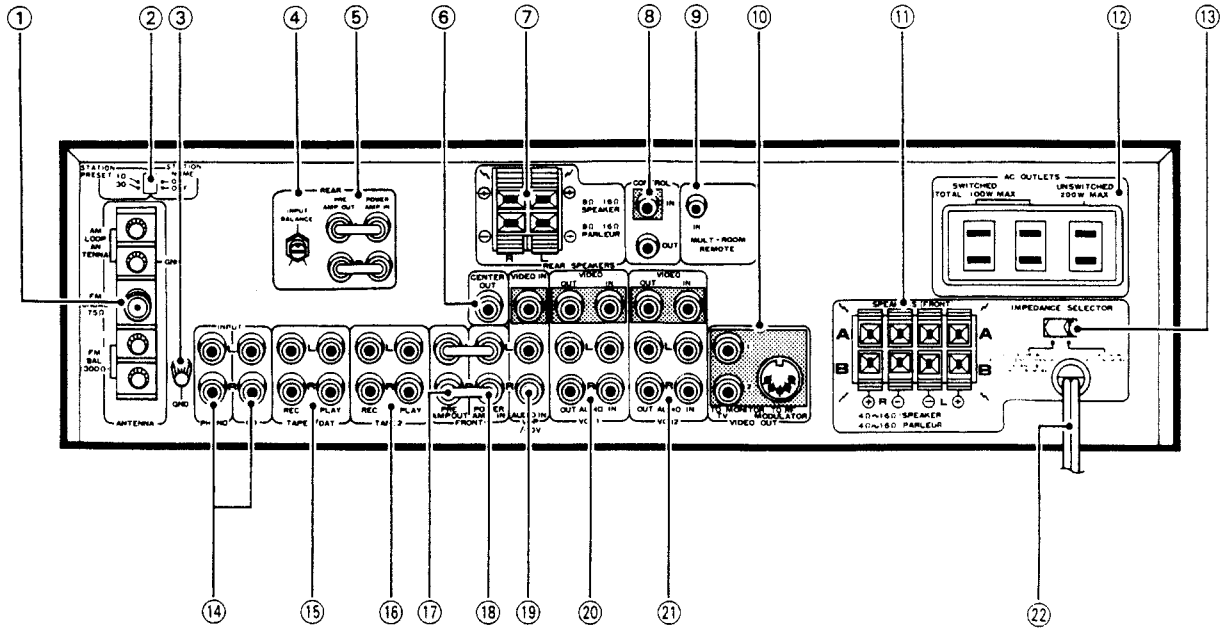
Furnished Parts

- FM T-type antenna 1
- AM Loop antenna 1
- Dry cell battery
  - VSX-5500S (LR03/AM-4) 4
  - VSX-5400 (R03/UM-4) 2
- Remote control unit 1
- Operating Instructions 1

NOTE:
Specifications and the design subject to possible modifications without notice due to improvements.

10. PANEL FACILITIES

*** Illustration shows U.S. model.**



① FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

② STATION PRESET/STATION NAME switch

Determines the number of presets possible using the STATION CALL switches.

10/ON: You can store a name for each station at this position, but each STATION CALL switch can store one station (10 station total).

30/OFF: Each STATION CALL switch can store three stations (30 stations total). (Press once, twice, or three times to select.)

③ GND terminal

Connect the turntable ground lead to this terminal.

④ SURROUND BALANCE (INPUT BALANCE) control

This knob is for adjusting the balance of the DOLBY SURROUND input signal. To adjust, apply a monaural sound signal and rotate until the SURROUND (rear) sound becomes minimum.

⑤ REAR AMP jacks

[PRE OUT]

When a separate power amplifier is used to drive the rear speakers, connect the power amplifier to these jacks.

[POWER IN]

When a separate preamplifier is connected and this unit is used as a power amplifier, connect the pre-amplifier to these jacks.

NOTE:

The REAR PRE-AMP OUT and REAR POWER AMP IN jacks are connected with connector bars. Remove these connector bars when you want to use the jacks, but be sure to reconnect them when the jacks are not in use. If you don't, there will be no sound from the rear speakers.

⑥ CENTER OUT jack

This is the Dolby surround center channel signal output jack. It can also be used as a 3D system MONO output.

⑦ REAR SPEAKERS terminals

Connect the surround speakers to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

Use surround speakers of impedance 8Ω – 16Ω.

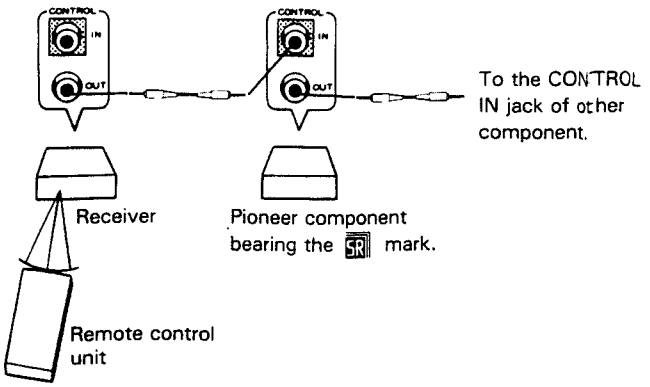
⑧ REMOTE CONTROL IN/OUT jacks

IN: Connect this jack to other Pioneer components (main unit or remote control unit) when using those components to control this unit.

OUT: Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

NOTE:

The receiver's remote sensor does not function when a plug is inserted in the IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.



⑨ MULTI-ROOM REMOTE IN jack.

When using the optional MR-100 adaptor for multi-room remote control, connect to this jack.

⑩ VIDEO OUT jacks

Use to connect a TV set for watching program materials from a VCR or VDP/CDV connected to this unit.

[TO MONITOR TV jacks]

Connect to monitor TV or to TV sets with video input terminals.

[TO RF MODULATOR jack]

Use to connect a normal TV set. When performing connections, the RF MODULATOR JA-RF5 (sold separately) is required. By connecting an RF modulator, video signals can be converted to VHF signals (U.S. channel 3 or 4), thus allowing this unit to be used to view the selected source on a normal television set.

NOTE:

A "normal TV set" as noted above is one for which RF connections alone are possible.

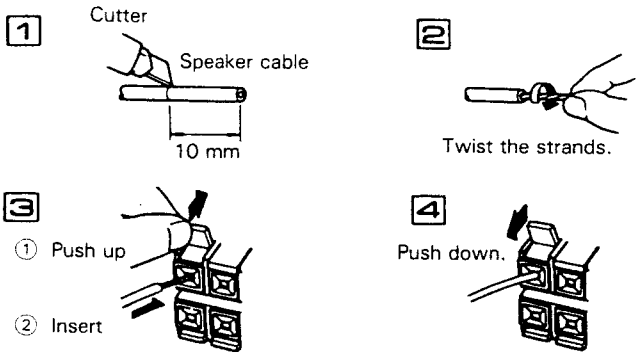
Sound is not output from the TO RF MODULATOR jack. Use the speakers connected to this unit to listen to the sound.

⑪ SPEAKERS (FRONT) terminals

A: Connect to a first set of speakers.

B: Connect to a second set of speakers.

Speaker lead wire preparation and connection.



NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contacts with each other.

Use speakers of impedance 4Ω – 16Ω. Also set the IMPEDANCE SELECTOR switch to match the impedance of your speakers.

⑫ AC OUTLETS

(SWITCHED TOTAL 100 W MAX)

Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

(UNSWITCHED 200 W (U.S. and Canadian model), 100 W (Multi-voltage model) MAX)

Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 200 W (U.S. and Canadian model), 100 W (Multi-voltage model).

The equipment should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.

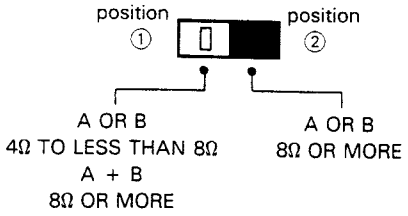
NOTE:

Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS in order to avoid overheating or fire risk.

This can cause the receiver to malfunction.

⑬ IMPEDANCE SELECTOR switch

Set this switch to match the impedance of your speakers.



• When using a pair of speakers:

Impedance of a speaker	Selector position
4Ω to less than 8Ω	①
8Ω or more	②

• When using two pairs of speakers:

Select ① as the selector switch position and use speakers having impedance of 8 ohms or more.

NOTE:

Turn off the receiver's power before changing the impedance selector switch setting.

⑭ INPUT jacks

PHONO ..... Connect to the output cables from a turntable.

CD ..... Connect to the output jacks of a compact disc player.

⑮ TAPE 1/DAT jacks

Use these to connect a first cassette deck or first DAT (digital audio tape deck).

Connecting for Recording

The tape recording jack (REC) on the cassette deck or DAT should be connected to the REC side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the PLAY jack on the cassette deck or DAT to the PLAY side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

⑯ TAPE 2 jacks

Connect a second cassette deck or second DAT to these jacks.

Connecting for Recording

The tape recording jack (REC) on the cassette deck should be connected to the REC side of the TAPE 2 jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the PLAY jack on the cassette deck to the PLAY side of the TAPE 2 jack on the receiver with a pin plug connecting cord.

⑰ FRONT PRE-AMP OUT jacks

When a separate power amplifier is used to drive the front speakers, connect the power amplifier to these jacks.

⑱ FRONT POWER AMP IN jacks

When a separate pre-amplifier is connected and this unit is used as power amplifier, connect the pre-amplifier to these jacks.

NOTE:

The FRONT PRE-AMP OUT and FRONT POWER AMP IN jacks are connected with connector bars. Remove these connector bars when you want to use the jacks but be sure to reconnect them when the jacks are not in use. If you don't, there will be no sound from the front speakers.

⑲ VDP/CDV jacks

[VIDEO IN]
When watching the video image from a LD player (VDP) or a CDV player, connect its VIDEO OUTPUT jacks here.
[AUDIO IN (L,R)]
When playing back the audio channel from a LD player (VDP) or a CDV player, connect its AUDIO OUTPUT jacks here.

⑳ VCR 1 jacks

[VIDEO OUT]
When copying program material from the video component connected to the VCR 2 or VDP/CDV jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.
[AUDIO OUT (L, R)]
When copying program material from the video component connected to the VCR 2 or VDP/CDV jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.
[VIDEO IN]
When monitoring the video image from a VCR used for playing, connect its VIDEO OUTPUT jacks here.
[AUDIO IN (L, R)]
When monitoring back the audio channel from a VCR used for playing, connect its AUDIO OUTPUT jacks here.

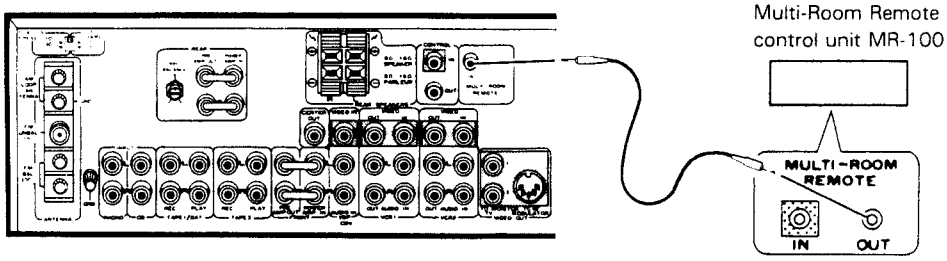
㉑ VCR 2 jacks

[VIDEO OUT]
When copying program material from the video component connected to the VCR 1 or VDP/CDV jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.
[AUDIO OUT (L, R)]
When copying program materials from the video component connected to the VCR1 or VDP/CDV jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.
[VIDEO IN]
When monitoring the video image from a VCR used for copying, connect its VIDEO OUTPUT jacks here.
[AUDIO IN (L, R)]
When monitoring the audio channel from a VCR used for copying, connect its AUDIO OUTPUT jacks here.

㉒ Power cord

Connect to AC plug in an AC wall socket.

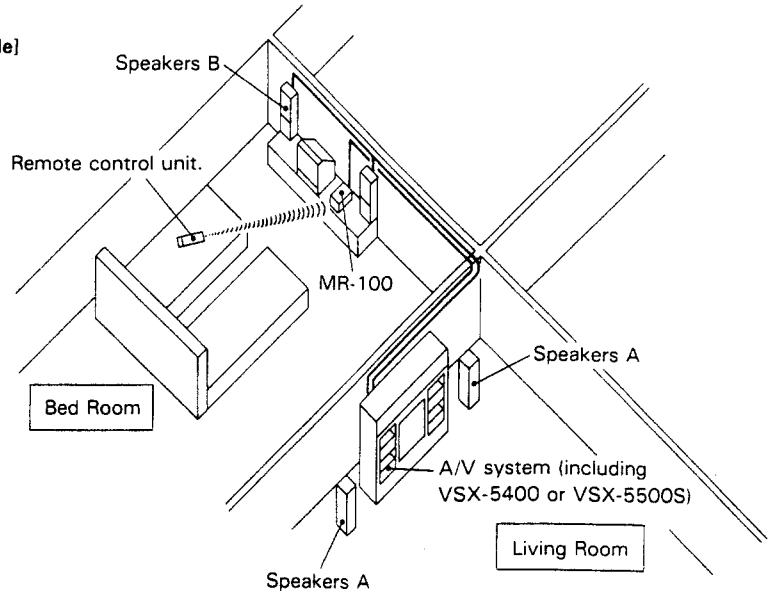
MULTI-ROOM REMOTE CONTROL ADAPTOR CONNECTION



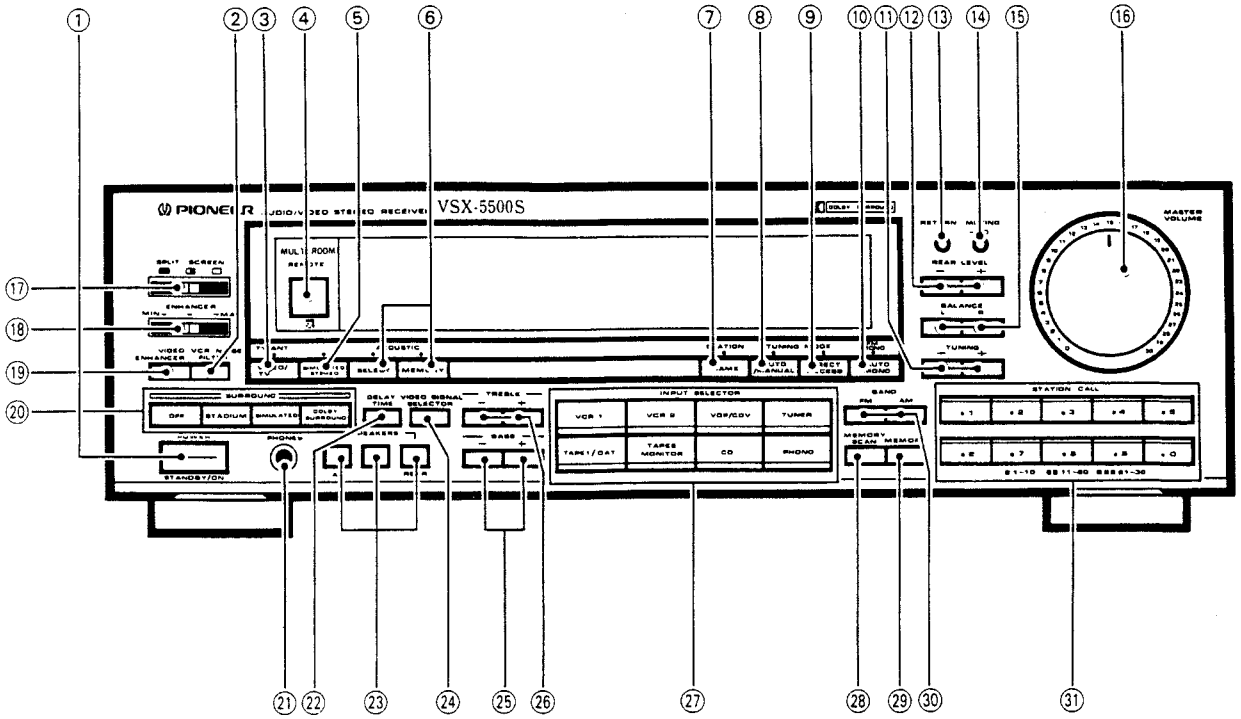
- For details, see operating instructions for multi-room remote control unit MR-100.

NOTE:
Be careful not to make the wrong connectios for CONTROL IN/OUT (black) and MULTI-ROOM REMOTE IN (green).

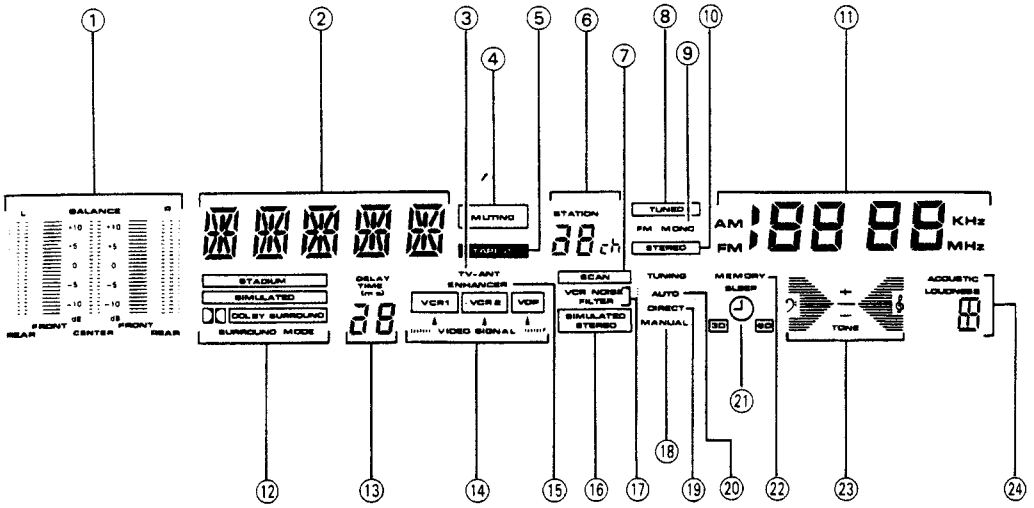
[Set-up example]



* Illustration shows VSX-5500S



DISPLAY SECTION



① POWER STANDBY/ON switch

- When the power cord is connected to a wall socket, the power will remain on even when the POWER switch is turned off. The unit is in the standby mode.
- When nothing is displayed in the display section, it is in the STANDBY mode.
- The accessory remote control unit can also be used to turn the receiver on or standby (STANDBY function).
- When not using the unit for a long period, disconnect the power cord.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② VCR NOISE FILTER switch

If tape hiss is noticeable while performing playback of video cassette tapes, press this switch to reduce the noise.
After pressing this switch, "VCR NOISE FILTER" will appear on the display section.

NOTE:
- *This switch can be used when either VCR 1 or VCR 2 function switch is selected.*
- *The effectiveness in reducing high-frequency hiss noise varies depending on the type of tape used, the recording level, and other conditions.*

③ TV ANT (VIDEO/TV) selector switch

This switch can be used in place of the TV ANT switch on the RF Modulator JA-RF5 (sold separately). This is effective only when the JA-RF5's TV ANT switch is set to the VIDEO position. For example:
In VIDEO mode (TV-ANT indicator in the display section goes off):
Allows you to use video components connected to the receiver.
In TV mode (TV-ANT indicator in the display section lights):
Connects the TV antenna, thus allowing you to view normal TV broadcasts,regardless of whether the receiver's POWER is ON or OFF (STANDBY).

NOTE:
- *When in the VIDEO mode, no sound will be produced from the TV set's speakers. Listen using the speakers connected to the receiver.*
- *Noise may be produced if the TV set's volume control is turned up. Turn down the set's volume control when listening.*
- *This switch functions only when the TV ANT selector switch on the RF Modulator is set to "VIDEO."*

④ Remote sensor

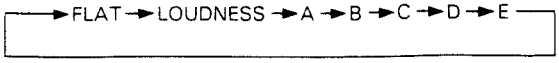
⑤ SIMULATED STEREO switch

Press to produce a simulated stereo effect when listening to monaural sources (for example, normal AM or TV broadcasts).
"SIMULATED STEREO" appears on the display section.

NOTE:
This effect is not produced through the surround rear speakers.

⑥ ACOUSTIC switch

MEMORY:
Pressing this switch will result in the memorization of the sound quality (tone control condition). Press again to cancel this mode.
SELECT:
- This switch is used to preset the five acoustic memories (A–E).
- This switch is also used to recall previously set sound quality settings. Each time you press the switch, the sound quality setting advances in the order shown below.



FLAT: For flat (normal) frequency response.
LOUDNESS:
Emphasizes the low- and high- frequency ranges. Produces a fuller sense of sound, particularly when listening at low volume.
A–E: Memorized acoustic memory settings.

Presetting the acoustic memory

1. Adjust the sound quality as desired using the BASS and TREBLE control switches.
   - Settings are shown by the TONE indicator on the display section.
2. Press the ACOUSTIC MEMORY switch.
   - The TONE indicator on the display section blinks on and off.
3. Press the ACOUSTIC SELECT switch and select the acoustic memory to which you wish to assign the setting (A – E).
   - The sound quality setting is memorized approximately two seconds after you last press the ACOUSTIC SELECT switch.

In this way, the desired tone will be preset in one of the five acoustic memory positions. To preset four other desired tone settings, perform the same operations.
To recall the memorized tone settings, press the ACOUSTIC SELECT switch to select the desired memory position. In this way, five different tone settings can be preset and recalled in the five positions of the acoustic memory.

⑦ STATION NAME switch

This switch is used when inputting station names.
Press again to cancel this mode.

⑧ AUTO/MANUAL TUNING selector switch

This switch is used to select the tuning mode. The TUNING AUTO indicator lights when the AUTO tuning mode has been selected. The TUNING MANUAL indicator lights when the MANUAL tuning mode has been selected.

AUTO tuning
When the – or + TUNING switch is pressed, the receiver automatically scans the broadcast station frequencies. When a broadcast is detected, the scanning stops at that frequency.

NOTE:
Pressing the TUNING switch (– or +) while scanning is taking place causes scanning to stop.

MANUAL tuning
This lets you manually tune to particular broadcast frequencies. Each press of the + or – switch raises or lowers the frequency by one tuning step. For continuous scanning, keep the switch depressed, then release it to stop scanning.

⑨ DIRECT ACCESS TUNING switch

When this switch is pressed, the STATION CALL switches function as ten-key number switches for direct input of the desired reception frequency. Press again to cancel this mode.
If the input station falls outside of the receiver's tuning range, the display section will display a message: "UPPER" if the frequency is too high and "LOWER" if it is too low.

⑩ FM MODE AUTO/MONO selector switch

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator in the display section is lit.

Auto stereo mode:

Normally, leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo.

Monaural mode:

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

This switch has no effect on reception of AM broadcasts.

⑪ TUNING switches

+ : Performs tuning from the currently displayed station frequency in ascending frequency order.

– : Performs tuning in order to descending frequencies.

⑫ REAR LEVEL (–, +) switches

Operate only when the surround mode is on.

These switches are used to preset the sound level difference between the front and surround speakers. In this way, after presetting the difference, the overall volume of the front and surround speakers can be changed using the MASTER VOLUME control, while still maintaining the sound volume differential.

– : Surround speaker volume is reduced.

+ : Surround speaker volume is increased.

Press – and + together to restore front and surround to the default volume balance setting.

Example: If keep pressing the "+" switch.

⑬ RETURN switch

Pressing this switch returns the receiver to the following settings, the sound level being controlled by the MASTER VOLUME control knob.

- TAPE 2 (MONITOR) ..... OFF
- SURROUND MODE ..... OFF
- MUTING ..... OFF
- FRONT BALANCE ..... CENTER
- FUNCTION ..... TUNER
- STATION CALL..... 1 CH *

* When a station is not memorized in 1 CH, station search will automatically proceed from the frequency displayed.

NOTE:

After pressing the RETURN switch, if there is no sound even when the MASTER VOLUME knob is adjusted, confirm that the SPEAKERS switch is ON.

⑭ MUTING switch

Press to temporarily cut off the sound volume. The display section MUTING indicator will flash. When pressed again, the sound will return to its previous level.

⑮ BALANCE switches

Use to adjust the sound volume balance between left and right speakers.

L: Press to decrease the sound on the right side.

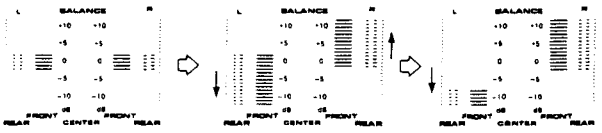
R: Press to decrease the sound on the left side.

Press L and R together to bring the volume balance back to center.

NOTE:

The left-right sound volume balance cannot be adjusted independently on the front and surround rear speakers.

Example: If keep pressing the "R" switch.

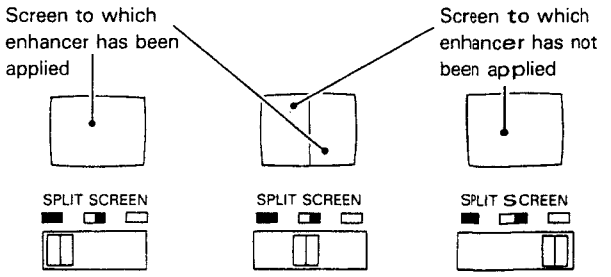


⑯ MASTER VOLUME control

Use to simultaneously adjust the sound volume from the front and surround speakers.

⑰ SPLIT SCREEN control

This control allows you to freely control the area of enhanced picture (on right side of screen) and original picture (non-enhanced, on left side of screen) by means of a vertical line dividing the screen into two sections.


Screen to which enhancer has been applied
Screen to which enhancer has not been applied
SPLIT SCREEN
SPLIT SCREEN
SPLIT SCREEN

NOTE:

This line is not output from the VCR (VCR 1 and VCR 2) VIDEO OUT jacks. As a result, the split screen image is not recorded; the recorded image will be entirely that produced by the enhancer function.

⑱ ENHANCER control

When performing tape copying with a VCR, some deterioration in image quality occurs normally. This control allows compensation for this deterioration in image quality by emphasizing image detail.

NOTE:

The ENHANCER control functions to suppress image deterioration, but will not improve image quality beyond its original state.

⑲ VIDEO ENHANCER switch

Turns the built-in video enhancer on and off. When it is ON, the ENHANCER control can be used to sharpen the playback video image. Using the SPLIT SCREEN function will enable you to compare the enhanced and original (unenhanced) images.

⑳ SURROUND mode selector switches

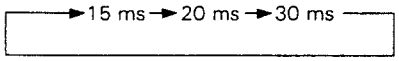
OFF:
To cancel the surround function.
STADIUM:
To listen sports broadcasts, music source, etc.
SIMULATED SURROUND:
Select this setting when listening to music or a monaural source, etc.
DOLBY SURROUND
Select this setting when watching video tapes or video discs bearing the ⊡◫ DOLBY SURROUND mark.

㉑ PHONES jack

Connect the plug on your headphones to this jack. Set both SPEAKERS A and B switches to OFF if you want to cut the sound from speakers and listen to it only through the headphones.

㉒ DELAY TIME switch

Operates only when the surround mode is ON.
Switches to surround delay time in three steps. For DOLBY SURROUND, 20 ms is standard.

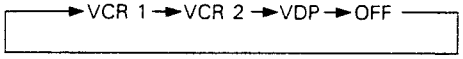


㉓ SPEAKERS switches (A, B, REAR) ▬ OFF ▂ ON

ON/OFF switches for the A, B and REAR (surround) speaker systems.

㉔ VIDEO SIGNAL SELECTOR switch

The video signal changes in the following order each time this switch is pressed.



The current setting is shown by an indicator on the display section.

㉕ BASS control switches

Use to adjust the low-frequency level. Press the + switch to increase low-frequency level, and the − switch to decrease it.
The TONE indicator appears on the display section.
When both switches (+, −) of the BASS control are pressed simultaneously, the bass response will be set to the flat (normal) condition.

㉖ TREBLE control switches

Use to adjust the high-frequency level. Press the + switch to increase high-frequency level, and the − switch to decrease it.
The TONE indicator appears on the display section.
When both switches (+, −) of the TREBLE control are pressed simultaneously, the treble response will be set to the flat (normal) condition.

㉗ Audio/Video INPUT SELECTOR switches

VCR 1: Press when performing playback on a VCR unit.
VCR 2: Press when performing playback on a second VCR unit.
VDP/CDV: Press when performing playback on a video disc player (VDP) or CDV player.
TAPE 1/DAT: Press when performing playback on a DAT or cassette deck.
TAPE 2 MONITOR: Press when performing playback on a second cassette deck or second DAT and when monitoring recording.
CD: Press when playing compact discs on a CD player.
TUNER: Press when listening to radio broadcasts.
PHONO: Press when playing records on turntable.

㉘ MEMORY SCAN switch

Operates when the INPUT SELECTOR is set to TUNER. Station frequencies assigned to the STATION CALL switches are tuned in, one after another beginning with station no. 1, for approximately 5 seconds each. The display section SCAN indicator will light. Press the switch again and the tuner remains tuned in to the station playing when the switch was pressed the second time.
Station frequencies not assigned station numbers in the memory are skipped.

㉙ MEMORY switch

When the unit is in the frequency display mode, pressing this switch will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.
This switch is also used to input station names.

㉚ BAND selector switches

FM: Press for FM reception.
AM: Press for AM reception.

㉛ STATION CALL switches

Each preset can hold any AM or FM station.
- These switches are used to preset and recall desired broadcasting stations, FM AUTO/MONO mode.
  The rear panel STATION PRESET 10/30 switch determines the number of possible presets per STATION CALL switch.
  10: One per switch.
  30: Three per switch.
  If you press the *2 key:
  - One time — station 2 is selected.
  - Two times — station 12 is selected.
  - Three times — station 22 is selected.

NOTE:
Pressing a BAND selector switch or STATION CALL switch will select TUNER as the source, regardless of what other listening source or function was selected.

[DISPLAY SECTION]

① **LEVEL/BALANCE display**

② **CHARACTER Display**

③ **TV-ANT indicator**
Lights up when TV mode is selected with the TV ANT switch.

④ **MUTING indicator**
Flashes when MUTING in ON.

⑤ **TAPE 2 indicator**
Lights up when the INPUT SELECTOR is set to TAPE 2 MONITOR ON.

⑥ **STATION No. display**
Shows the channel selected with the STATION CALL switch.

⑦ **SCAN indicator**
Lights up during memory scan operation.

⑧ **TUNED indicator**
Lights up when a station is tuned in during TUNER operation.

⑨ **FM MONO indicator**
Lights up when the FM MONO mode is selected with the FM MODE switch.

⑩ **STEREO indicator**
Lights up when a stereo FM broadcast is being received.

⑪ **Frequency display**

⑫ **Surround mode indicators**

⑬ **DELAY TIME display**
Shows the delay time during surround operation.

⑭ **VIDEO SIGNAL SELECTOR indicators**
Shows the video component selected with the VIDEO SIGNAL SELECTOR switch.

⑮ **ENHANCER indicator**
Lights up when the video enhancer is on.

⑯ **SIMULATED STEREO indicator**

⑰ **VCR NOISE FILTER indicator**
Lights up when the VCR NOISE FILTER switch is in the ON position.

⑱ **MANUAL TUNING indicator**
Lights up when in the manual tuning mode.

⑲ **DIRECT TUNING indicator**
Lights up when in the direct access-tuning mode.

⑳ **AUTO TUNING indicator**
Lights up when in the auto tuning mode.

㉑ **SLEEP timer indicators**
Shows the SLEEP timer setting (the length of time from the set time to the point at which power will switch off). (The sleep timer can be operated via the remote control.)

㉒ **MEMORY indicator**

㉓ **TONE level indicator**
Shows the settings of the BASS and TREBLE switches.

㉔ **ACOUSTIC display**
Shows the setting of the ACOUSTIC SELECT switch.